# The

OFFICIAL PUBLICATION OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



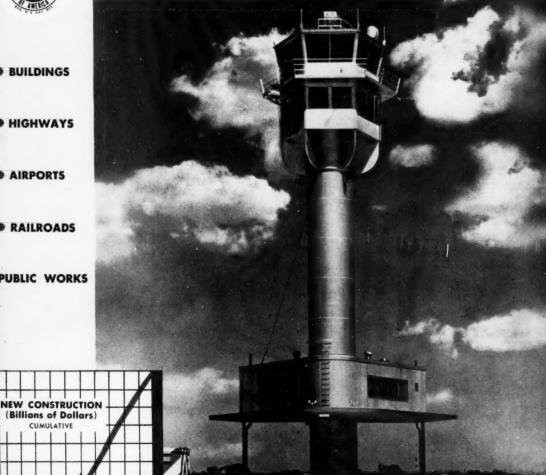
Volume XXXIII

**AUGUST 1951** 

Number 8

- BUILDINGS
- HIGHWAYS
- AIRPORTS
- RAILROADS

**PUBLIC WORKS** 



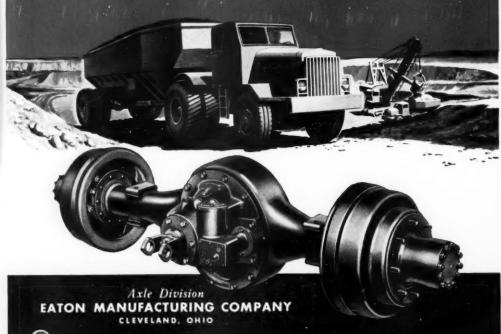
CUMULATIVE 1951 1950

Basic Construction Wage Order Issued-27 Navy's Shore Establishment Program-30 Highway Contract Overruns, Penalties-47

# EATON 2-5,0000 Thuck AXLES Can Take It

Ruggedness of design, plus such exclusive features as planetary gearing and forced-flow lubrication, reduce stress and wear to a minimum, add thousands of miles to axle life. Eaton 2-Speed Axles also add to the life of the vehicle and insure lowest cost per mile, particularly in the kind of service where extra pulling

power must be combined with speed. Because Eaton 2-Speed Axles provide the best gear ratio for every operating condition, they permit engines to run at most officient speeds, and reduce strain on engine and power transmitting parts. Ask your dealer to explain how Eaton 2-Speed Axles will help your trucks do more for less.



PRODUCTS: SODIUM COOLED, POPPET, AND FREE VALVES . TAPPETS . HYDRAULIC VALVE LIFTERS . VALVE SEAT INSERTS . JET ENGINE
PARTS . ROTOR PUMPS . MOTOR TRUCK AXLES . PERMANENT MOLD GRAY IRON CASTINGS . HEATER-DEFROSTER UNITS . SHAP RINGS
SPRINGTITES . SPRING WASHERS . COLD DRAWN STEEL . STAMPINGS . LEAF AND COIL SPRINGS . DYNAMATIC DRIVES, BRAKES, DYNAMOMETERS

SURE-GRIP Tops for drivewheel traction

HARD ROCK LUG

Super-tough champ for all types of rock work

HARD ROCK RIB

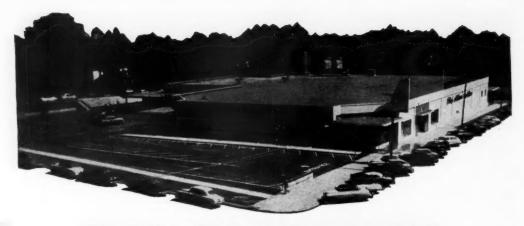
Companion tire for front wheels in rock work

It <u>must</u> pay to Buy and Specify

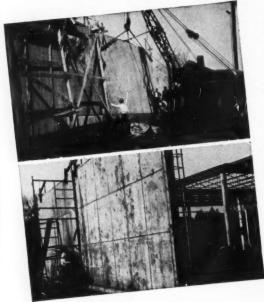
GOOD YEAR

ON GOODYEAR TIRES
THAN ON ANY OTHER KIND!





## WHAT MR. SEARS DIDN'T KNOW ABOUT RETAIL STORE BUILDING, MR. ROEBUCK DID!



SEARS, ROEBUCK & CO.
Retail Store Buildings: Florence and Anniston, Alabama
Architect: F. E. DAVIDSON, Atlanta

Contractor, Florence Store:

DANIEL CONSTRUCTION CO.; INC., OF ALABAMA
Birmingham

Contractor, Anniston Store: FRANK H. BROWNETTE, Jacksonville, Fla. Lone Star and 'Incor' Ready-Mix Concrete: GRAY'S CONCRETE PRODUCTS, Florence, Ala. JOHN B. LAGARDE, INC., Anniston ● Sears-Roebuck expresses astute merchandising in terms of advanced store design and planned construction economies, using quality concrete for lowest initial and annual cost.

New stores, at Florence (shown here) and at Anniston, Alabama, each with 50,000 sq. ft. floor space, exemplify modern construction trends, with completely integrated design, including related parking area.

Exterior wall panels are 'sandwich' design, with inner two inches of vermiculite concrete, using 'INCOR' 24-HOUR CEMENT to speed placing the rest of the 8-in.-thick panel. (With sandwich design, practically any desired heat-transmission value can be obtained.) Grooved panel exteriors add wall interest.

After tilting panels into position, columns were poured between panels, then beam and parapet cast, completing the walls. Heavy cardboard tubing was used for forming the 15-ft., 12-in.-diameter, castin-place interior concrete columns.

Example of selective concreting—using Lone Star Cement for quality concrete and switching to 'Incor'\*, where America's FIRST high early strength Portland cement saves time—and time is costlier than ever these days!

\*Reg. U.S. Pal. Off.



#### LONE STAR CEMENT CORPORATION

Offices: ABILENE, TEX. • ALBANY, N.Y. • BETHLEHEM, PA. • BIRMINGHAM • BOSTON • CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK • PHILADELPHIA • RICHMOND • ST. LOUIS • WASHINGTON, D.C. LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 17 MODERN MILLS, 125,000,000 SACKS ANNUAL CAPACITY

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#### COVER

Nerve center of Sky Harbor Municipal Airport, Phoeñix, the tallest control tower in the United States, shown in this month's cover, supports a control deck almost 100 feet high affording unlimited visibility to all sections of the airport. A circular staircase rises through the steel tower shaft to upper decks completely walled by glare-proof, heat and pressure resistant glass. Construction is by the Mardian Construction Company, A.G.C., Phoenix. (See page 44.)

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## C.I.T. CORPORATION

Industrial Financing

ONE PARE AVENUE, NEW YORK IG, N Y

S.D. MADDOCK PRESIDEN

August, 1951

Do you know about our business and the ways in which Dear Mr. Contractor: it helps contractors get their jobs done?

Bigger jobs that have been coming along in recent years require the contractor to have more equipment and more working capital funds available for payrolls, materials, taxes, etc.

If you are purchasing new equipment, we can work out a program that will enable you to pay for it monthly over a period of time with the payments geared to your anticipated receipts from the jobs. require additional working capital promptly in order to get going on the jobs, we can advance funds against the security of the equipment that you now

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416 W. 8th St. LOS ANGELES 660 Market St. SAN FRANCISCO

Basic area wage policy for the construction industry was laid down by the Construction Industry Stabilization Commission in its Regulation 1 which controls salaries, wages and other forms of compensation for the 2.5 million laborers and mechanics employed in the nation's second largest industry. Knotty problems coming up include questions of productivity increases and basic date for cost-of-living increases. (Page 27)

New price regulation to permit contractors to reflect increased labor and materials costs in future ceiling prices was discussed by industry advisory committee with Office of Price Stabilization officials, but issuance was delayed pending study of new controls law. A.G.C. had recommended exemption of cost-plus-a-fixed-fee contracts and all private and public contracts awarded after competitive bidding, and handling of general contracting operations separately from sellers of building materials, subcontracting and specialty contracting. OPS officials meanwhile considering extension of filing deadline under CPR 34 to an appropriate time after new order is issued. (Page 24)

M-4A, the new construction order issued August 3, is much more drastic than industry had earlier been led to believe. Designed to bring all construction under controlled materials plan by 4th quarter, it tightens restrictions on large projects. Continuance of construction now under way, as well as commencement of new projects, affected. Aluminum use for-bidden except in industrial construction. (Earlier story, page 23) M-4 was amended to change \$35,000 limitation on residential building to limitation of 2,500 square feet of floor space as maximum beyond which NPA authorization is required, plus other minor changes.

Allotments of controlled materials for fourth quarter are generally the same as for current period, with allocations for normal civilian production slightly reduced. (Page 23)

Tax law changes to eliminate undue hardship on general contractors who suffer unusual depreciation of equipment and unpredictable operating

schedules were requested on behalf of A.G.C. before Senate Finance Committee. Requested changes were carry-back and carry-over provisions, changes in transportation of property tax, and provision for general contractor to adjust unused equipment depreciation allowances. (Full testimony on page 60)

Not one appropriation bill for fiscal year 1952 having been signed, Congress sent H.J. Res 302 to the White House to provide temporary funds during August.

Controls legislation approved by the President who reluctantly signed the 1951 Defense Production Act which expires June 30 of next year, contains very little of the additional authority requested and in some instances reduces authority provided by the 1950 Act. (Earlier story, page 61)

Military Construction bill which requested \$6.5 billion for public works programs of the Army, Navy and Air Force has been reduced by the House Armed Services Committee to \$5.6 billion as a result of limiting expenditures to amounts needed for 1952 only. Assistant Secretary of the Army Karl R. Bendetsen stated that the requested authorization is just "one installment" of a global program designed to prevent all-out war.

Defense facilities expansion approved in first six months of 1951 under rapid tax amortization program totals \$6.7 billion, 70 per cent of which was eligible for rapid write-offs, with steel industry taking lion's share of \$2.2 billion for increasing its productive capacity, according to Defense Mobilization Director Wilson's second quarterly report.

Aircraft industry seeks reduction in five-year tax amortization period, if present defense emergency should end in less than five years, to ease burden of costs for current expansion which would be almost useless without acute need for military aircraft. (Page 32)

Pipeline construction is being hampered by steel shortages which limit laying of new pipe to 59 per cent of the absolute minimum estimated by the Petroleum Administration for De-

fense during the third quarter, preventing completion of highest-priority projects already under construction.

Biggest flood in the Missouri Basin left in its wake tangible damage estimated at well over \$1 billion and other inestimable losses in lives and production. Toughest job of cleanup and emergency restoration fell to general contractors and construction labor under supervision of Army Engineers. (Page 22)

Valley authority proponents seized upon the disaster to attempt to discredit Pick-Sloan plan for Missouri Basin development being carried out by Army Engineers and Bureau of Reclamation. But in the basin itself, support was rallying around speeding up work on the Pick-Sloan program, and only one major newspaper held to the old Missouri Valley Authority line. It appeared that outsiders were spearheading criticism of the program as now being carried out.

Construction volume in July of \$2.8 billion was three per cent over June total with public construction up six per cent, and 37 percent above July 1950; private outlays were two per cent above June, but eight per cent below July of last year.

A.G.C. Contractors' Equipment Ownership Expense schedule has been modified to recognize current acceleration in construction equipment costs which must be considered by contractors in planning purchases of new equipment and repair parts. (Page 22)

Irregular bids should not be considered by government agencies, the Procurement Subcommittee of the House Armed Services Committee reported after an investigation of bid bonds. In blunt language, the subcommittee took issue with a 1950 Defense Department procurement regulation provision permitting correction or waiver of "minor informalities or irregularities in bids"-including "inadvertent" failure to furnish bid bond with bidwhen "it is not to the disadvantage of the government." The committee recently heard A.G.C. testimony requesting enforcement of the requirement for submission of bids in conformance with bidding instructions.



### On the double for Industrial Building Saving Men... Money... Material



There's a double job facing building today that has to be done on the double. For the industrial plant of America must expand . . . to build our defenses . . . to provide a healthy economy at home. And yet we must save our vital resources of men, material . . . yes, money, too. And to help you meet this double demand, Ceco offers a double-duty building service ... two construction methods. Each is versatile enough to meet specialized building needs... efficient enough to use a minimum of critical resources . . . two types of joist construction - fire-resistive - each saving three big ways.

#### Here's How Ceco Saves Vital Resources

#### CECO'S MEYER STEELFORM CONSTRUCTION

For Human Occupancy Buildings, light manufacturing plants, many other structures using any framing.

Saves Men because less time and labor are required to provide open wood centering and form work.

Saves Money by saving concrete ... the "dead load" is kept at a minimum. Also, less lumber is used.

Saves Material because only a minimum of critically short steel is needed. Less concrete, too.

#### CECO'S STEEL JOIST CONSTRUCTION

For Human Occupancy Buildings and roofs of industrial plants using steel or masonry framing.

Saves Men because steel joists are light and easy to nstall. Special equipment is not required.

Saves Money because steel joists are self-centering. Concrete form work rests directly on the joists.

Saves Material because the "dead load" is amazingly low. Beams, columns and footings weigh less.



rovides long spans, maxing area free of columns.

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General Offices: 5601 West 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

CECO

In construction products CECO ENGINEERING makes the big difference

#### A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

#### TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for July stands at Index Number 379, according to the A.G.C. Index. The cost figure for July 1950 was 357. The 1913 average equals 100.

#### WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 506 for July. One year ago the average stood at 488. The average of prices paid by contractors for basic construction materials for July stands at Index Number 295. The average a year ago stood at 271. The 1913 average, again, equals 100.

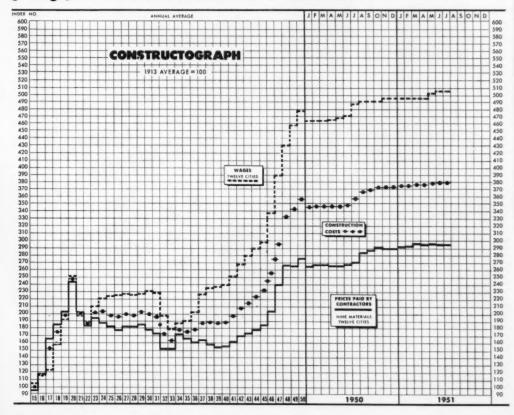
#### **CONTRACT AWARDS IN 37 STATES**

The volume of contracts awarded during June (Index Number 282, based on 1936-1938) is a decrease of 234 points from May, and a decrease of 11 points from June 1950.

#### REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 29 weeks of 1951 totaled 22,089,674 cars. For the same period in 1950, loadings amounted to 20,058,142 cars. This represents an increase of 10 per cent.

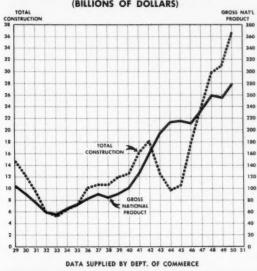
#### • Wage, Material Price and Construction Cost Trends





#### **TOTAL Construction compared** with Gross National Product

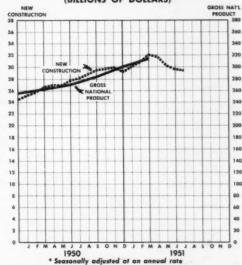
(BILLIONS OF DOLLARS)



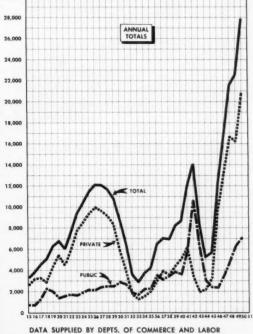
30.000

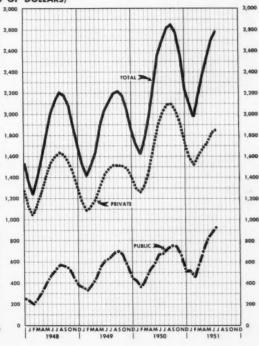
#### **NEW Construction compared** with Gross National Product\*

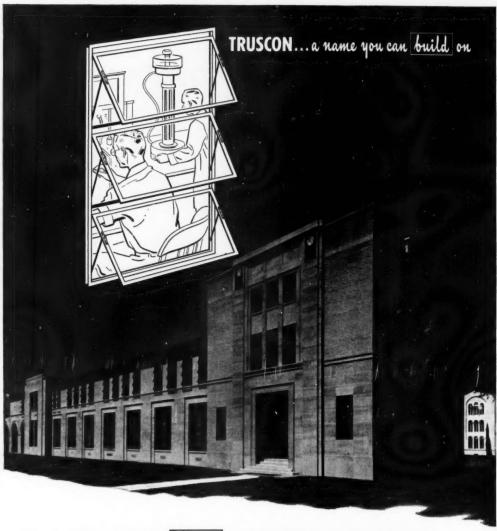
(BILLIONS OF DOLLARS)



#### New Construction Activity (MILLIONS OF DOLLARS)







Nice at Rice...those | better | Truscon Donovan Steel Windows

These are well-engineered windows . . . for well-engineered lighting and ventilation . . . in the Engineering Building at Rice Institute, Houston, Texas.

MARK OF MERIT

Credit: Slaub & Rather, Architects
W. S. Bellows Construction Company, Contractors

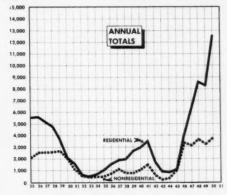
The ventilators in Donovan Steel Windows operate in unison, either by manual control or by completely concealed mechanical operators, as desired. The awning principle of the ventilator construction permits the admission of air in inclement weather and the design completely eliminates all unsightly exposed connecting arms, screws, racks, etc. A wide variety of architectural layouts is possible with the Donovan Steel Window types available.

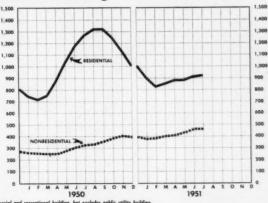
See Truscon's complete catalog in "SWEET'S" for full information on all Truscon Mark of Merit Products.

TRUSCON® STEEL COMPANY YOUNGSTOWN 1, OHIO Subsidiary of Republic Steel Corporation

#### **NEW CONSTRUCTION ACTIVITY**

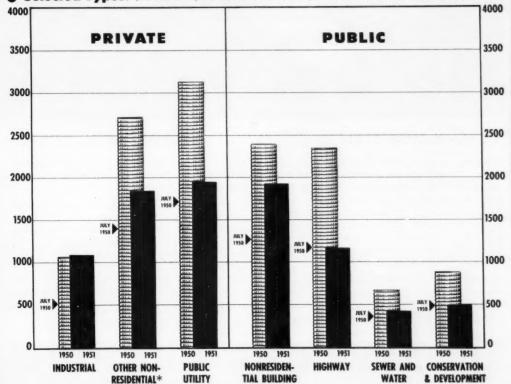
#### ● Private Residential and Nonresidential Building \* (MILLIONS OF DOLLARS)



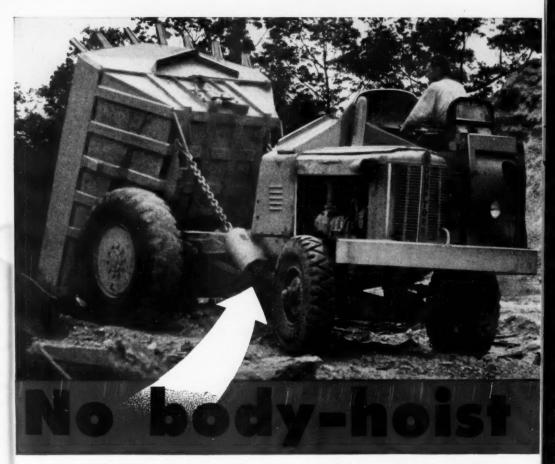


\* Residential excludes form: Manageridantial includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building

#### ● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1950 and 1951 VOLUME THROUGH JULY



\*Includes commercial, institutional, and social and recreational building



#### CUTS MAINTENANCE COSTS . . . SPEEDS HAUL CYCLES

Koehring Dumptors have no slow-working body hoists. Trip the release lever and gravity dumps the 6-yard load in one second. It's as simple as that! No complicated mechanical hoists to slow up haul cycles . . . no expensive replacement parts, costly hoist maintenance or down time to eat into your profits. And gravity dump is instantaneous and trouble-free in all temperature extremes . . . never wears out.

No costly spring maintenance is another money-saving advantage you get with Koehring Dumptors. There is just one big, double-coil chassis spring on steering axle . . . none on driving axle.

Extra-big, shock-absorbing drive tires eliminate need for more. You save spring maintenance time and replacement costs.

Check your body hoist and spring maintenance costs for a year . . . see how much you'll save by using Dumptors. What's more, Dumptor's no-turn shuttle haul and constant-mesh transmission for 3-speed travel forward and reverse, increase production . . . and your profits. See your Koehring distributor now for all the facts . . . or send today for the informative 28-page Dumptor catalog.

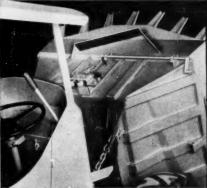
KOEHRING CO., Milwaukee 16, Wis. Subsidiaries: KWIK-MIX . JOHNSON . PARSONS

CK121





Dumptor body release lever is conveniently located alongside steering wheel . . . there's no reaching or stretching necessary . . . trip lever engages trip rod on body.



Trip rod instantly releases latch hooks from latch seat on chassis frame . . . and gravity dumps the load. Latch automatically locks as body returns to loading position.



Scoop-shaped Dumptor body rolls on heavy-duty rockers. Snub chains are attached to big, coil-spring shock absorbers, which check the body at approximate 70 degree tilt.



#### 934-FT.-PER-MIN. Parsons 250 Trenchliner

digs 16 to 42 in. wide, up to 12½ ft. deep . . . has full reverse of all operations for undercutting or making vertical set-ins. Offset digging boom cuts within 11 in. of side obstructions . . . power-shift spoil conveyor dumps right or left. Easy-in-easy-out "Tap-In" teeth for buckets and side cutters are quickly installed, self-sharpening. Your Parsons distributor can show you many other production-boosting features. See him, or send for catalog. Also, 3 other sizes are available including a wheel-type Trenchliner.

PARSONS Company, Newton, Iowa (Kochring Subsidiary)



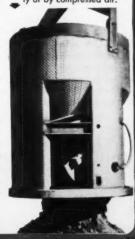
## BIG PAYLOAD Clamshells . . . Smooth inside

and out, Johnson all-welded Clamshells dig, dump with less resistance. Manganese cutting edge, welded to heavy lips, toughens with use, assures big payload performance. In 10 sizes . . . from % to 3 yards.

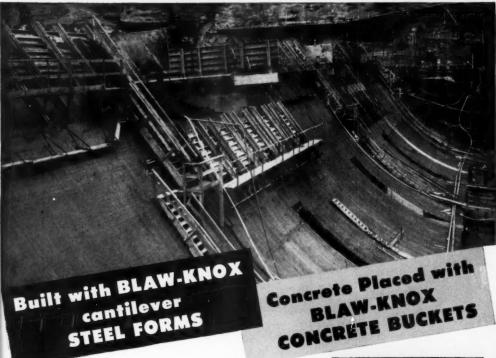
C. S. JOHNSON Co., Champaign, III. (Keehring

#### LO-SLUMP Concrete Buckets

... 2 to 8-yd. sizes, with builtin vibrator, handle the sticklest concrete ... have large controlled double-clam discharge gates, operated manually or by compressed air.



# A Million Yard Concreting Job



WITH over a million cubic yards of concrete being placed on the Mt. Morris Dam project—Blaw-Knox Steel Forms and Concrete Buckets are used to speed completion and keep costs at minimum levels.

Whenever you have a huge undertaking like this, or any tough or unusual concreting problem call on the Blaw-Knox engineering service, available to any contractor from preliminary planning to the final pour. Blaw-Knox engineers can recommend the correct forms for your job, and help you cut costs by suggesting simplified forming methods that often reduce the number of necessary operations. When you write for information, also ask for Bulletin 2035.



Model CAC 8 yd. Concrete Bucket placing concrete on the Mt. Marris Dam job. Equipped with air-operated clam gates, these Blaw-Knox buckets are designed for big-job specifications calling for air-entrained cement and 6" aggregate in the



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#### For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

This table indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from April 15, 1949 to June 15, 1951.

They are presented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

The Bureau of Labor Statistics surveys 10 key cities every month and 24 other large cities quarterly. Prices are obtained on food, fuel, apparel, house furnishings and miscellaneous goods and services. Rental information is obtained quarterly only for all cities. The computations are based on the indexes for the years 1935-39, which are taken as the average of 100 points.

on increased fiving costs.				which are taken as the av-			crage of 100 points.		
	1949 APR. MAY		JUNE	APR.	1950 MAY	JUNE	APR.	1951 MAY	JUNE
	15	15	15	15	15	15	15	15	15
Average	169.7	169.2	169.6	167.3	168.6	****	184.6	185.4	185.2
Birmingham, Ala	171.6	171.4	172.1	167.7	169.0	171.1	189.9	190.1	189.8
Mobile, Ala			170.3			167.4	*****	****	183.5
Los Angeles, Calif	171.2	169.6	168.7 i	166.9	166.7	166.7 i	185.6	186.3	186.1
San Francisco, Calif			173.7			173.1			188.4
Denver, Colo	169.9			165.7			187.0		
Washington, D. C		165.3			165.2			180.0	
Jacksonville, Fla			174.9	*****		176.7	*****		190.6
Atlanta, Ga		170.5			169.3			192.7	
Savannah, Ga	174.9			170.9			195.5		
Chicago, Ill	175.0	174.2	175.9	172.9	175.3	176.4	189.1	189.8	190.1
Indianapolis, Ind	171.9		****	170.9			187.7		
New Orleans, La		172.5			171.5			188.5	
Portland, Maine			165.8			164.5			176.4
Baltimore, Md			174.2			174.3			189.8
Boston, Mass	162.4	162.2	163.3	162.3	163.3	166.2	175.5	176.1	176.5
Detroit, Mich	171.1	171.6	172.0	169.5	171.4	174.2	186.7	187.4	188.5
Minneapolis, Minn			169.1	****	*****	169.2			183.6
Kansas City, Mo	163.3			161.1			178.5		
St. Louis, Mo			169.8			169.7			185.0
Manchester, N. H	170.6		*****	167.1			182.9		
Buffalo, N. Y	168.3			166.3			183.3		****
New York, N. Y	168.1	166.8	167.0	164.5	165.4	167.0	180.6	181.4	180.3
Cincinnati, Ohio	170.7	169.1	170.5	167.3	169.7	171.2	184.6	184.8	185.0
Cleveland, Ohio		171.5			170.1	*****		188.2	* * * * * *
Portland, Ore	177.6			174.8			194.1		
Philadelphia, Pa	169.0	169.9	169.2	166.0	167.1	169.7	185.9	186.4	185.6
Pittsburgh, Pa	173.0	172.9	173.1	170.1	172.0	173.4	186.7	187.8	187.8
Scranton, Pa		168.4	****		167.3			182.4	
Memphis, Tenn			173.5	*****		169.9			187.
Houston, Texas	171.0	170.6	170.5	171.9	172.4	173.1	192.5	192.0	192.
Norfolk, Va		170.3		*****	170.9		*****	188.3	
Richmond, Va	164.2			161.9			181.2		
Seattle, Wash		172.5			171.8			191.4	
Milwaukee, Wis	*****	169.3	*****		170.9			190.9	

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Ask for a quotation on your next project. Prove to yourself, your organization, that anyone with a space to span can do it better, safer, taster and MORE ECONOMICALLY with Macomber Bowstrings.

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Macomber Bowstring Truss sales have pyramided since their introduction 28 years ago.

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STANDARDIZED STEEL BUILDING PRODUCTS

MACOMBER - INCORPORATED

CANTON, OHIO

V BAR JOISTS . LONGSPANS . BOWSTRING TRUSSES . STEEL DECK

#### **Sidelights for Contractors**

By John C. Hayes, Legal Adviser

#### Taxes

Over Ceiling Wages.-Under the provisions of the Defense Production Act of 1950, the Wage Stabilization Board has issued Enforcement Resolution 1. which in part requires the disallowance by government agencies of the entire amount of compensation payments found by the board to have been made by the employer in contravention of the act. Among the purposes mentioned for which such disallowance shall be made are in calculating deductions under the federal revenue laws and in determining costs or expenses under any contract made by or on behalf of the United States. However, in cases where the board finds mitigating circumstances, it may determine that less than the full amount of such wage or salary payments shall be disregarded and by which particular government agencies.

In a case arising under the earlier Emergency Price Control Act of 1942, the Tax Court held that as a matter of law wages paid in excess of that Act and orders thereunder constituted unreasonable compensation and to such extent were not deductible for income tax purposes as ordinary and necessary expenses.

Redemption of Stock.—Where a stockholder received from a corporation payment in exchange for all his stock therein and no longer retained any beneficial interest in the corporation, the Tax Court decided that the proceeds from sale to the corporation were not taxable to the stockholder as essentially equivalent to the distribution of a dividend.

Loss on Residence.—A loss on the sale of residential property used by a taxpayer as his personal residence is not deductible for income tax purposes, the Tax Court states, nor can such a loss be used to offset a gain on a similar but separate sale by the taxpayer in the same year. (It has been proposed in the revenue act now pending in Congress to recognize any gain on a sale of a taxpayer's residence only to the extent that the proceeds are not reinvested within a vear in purchase of another residence.)

Transportation Tax.—A district court ruled that payment for operation of dump trucks in hauling gravel and fill from pits for a road construction project, the hauling being principally on the roads under construction, was not payment for the transportation of property within the terms of the federal tax statute, but was merely incidental to the construction of the road.

Family Partnership.—Despite the plea by a father that the partnership set up by himself and his two sons was invalid, the Tax Court sustained the partnership for income tax purposes, where it appeared the parties had intended to form a genuine partnership. Thus, the court refused to permit the father to apply the full amount of the 1947 net operating loss carry-back for the business against his own 1945 individual net income.

Trusts as Partners.—There is nothing to prevent a trust from being a member of a partnership for income tax purposes, a district court states, in recognizing the validity of a partnership composed of a mother and two trusts set up by her for the benefit of her two daughters. The business was managed by the father on a salary, and the partners in good faith intended to conduct the business as a partnership, each partner owning a one-third interest in the business and sharing profits and losses in that proportion.

Reimbursed Moving Costs.—The Bureau of Internal Revenue has announced that no longer will it require workers to report as taxable income the reimbursement by the employer of moving costs when the worker is moved in the interest of the employer from one official station to another for permanent duty. The exclusion extends to costs of moving the worker and his immediate family and their personal and household effects, but not to any extra living costs paid by the employer for meals or lodging incurred in moving.

Stock Dividend.—A circuit court of appeals has decided that a taxpayer

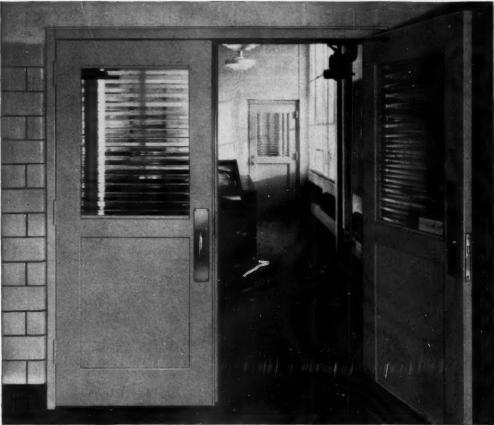
holding only one class of stock in a corporation receives a taxable dividend on issuance by the corporation of stock dividends in both classes of its outstanding stock, since the proportionate interest of the taxpayer in the corporation was changed thereby.

#### **Public Contracts**

Cost-Plus Contract.—Under a costplus Navy contract making the Navy Board of Contract Appeals the final arbiter on allowability of items of costs, the General Accounting Office is without authority to disallow reimbursement for charitable contributions permitted as costs by such board. In so ruling, a district court said that, whether or not the allowance was a question of law or fact, or both, it was clear that the contract designated the board as the final authority on the dispute.

Cost-Plus Contract.—The Comptroller General has refused to approve as a reimbursable item of costs under a cost-plus Army contract an expense paid by the contractor in transferring to a domestic bank government reimbursement checks received in Alaska. While a contract clause authorized payment for service charges in transferring funds between domestic and territorial banks, the Comptroller General thought such clause was limited to funds necessary to pay current costs and expenses at the job site and did not extend to the costs of disposing of reimbursement payments received from the government.

Renegotiation. — Distinguishing a Supreme Court decision that the Tax Court has exclusive jurisdiction in renegotiation cases to decide what are and what are not renegotiable contracts, a court of appeals ruled that it could review a Tax Court decision on whether a particular company whose renegotiable income was not equal to the jurisdictional amount specified in the Renegotiation Act was under common control with another company subject to the act, to determine whether the former company itself was subject to renegotiation.



Two of the 135 Fenestra Metal Door Units (Door, Frame, Hardware) in Robert N. Mandeville High School, Flint, Mich. Architect: Bennett & Straight, Dearborn, Mich. Contractor: Karl B. Foster, Flint, Mich.

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You save money with these beautiful standardized Fenestra\* Doors because they cost less to buy than most doors, less to install, less to keep working and looking like new.

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- 2 Fenestra Hollow Metal Doors come complete with strong steel frames and shining hardware. Installer just bolts the frame together, attaches it to floor and anchors it to wall, screws on template locks and hinges, hangs the door. No cutting or fitting or mortising or puttying or prime-painting. That's

real on-the-site timesaving!

3 Fenestra Hollow Metal Doors won't sag, warp, swell, shrink or splinter. They can take a beating and come up smiling. An occasional coat of paint makes them look like new. They're insulated, too, for quiet performance.

These Fenestra Hollow Metal Doors are in local stocks. Compare the performance, the quality, the cost with any door on the market. They're another Fenestra Building Product engineered to cut the cost of building.

Doors with Underwriters' B Label are also available. Just call your Fenestra Representative (he's listed in your phone book). Or write Detroit Steel Products Company, Dept. C-8, 2255 E. Grand Boulevard, Detroit 11, Michigan.



DOORS . WINDOWS . PANELS

engineered to cut the cost of building

#### **Muddy Water and Politics**

WHEN the swollen waters of the Kaw River swept through eastern Kansas last month, then joined forces with the "Big Muddy" for a destructive journey across Missouri and on southward with the Mississippi, they left in their wake tangible damage estimated at over \$1 billion and other inestimable losses in lives and production.

They also left in their wake opposing thoughts on how to carry out a program to prevent such costly catastrophes in the future. The situation provided a heyday for armchair and sidewalk engineers.

Taking advantage of the inevitable national attention and sympathy focussed on the disaster-ridden region, proponents of the valley authority type of development sharpened their knives and began attempting to whittle away the reputation of the Army Corps of Engineers and the Bureau of Reclamation.

The Congress of Industrial Organizations vociferously charged the Engineers and the Bureau of Reclamation with "botching the job" in the Missouri Basin and urged a four-point program including (1) appointment of an emergency commission to draw up a "sound" river management program in the few months between now and January 15; (2) action on the popularized idea of building many small upstream dams, farm ponds and terraces to hold back the waters; (3) establishment of a Missouri Valley Authority; and (4) establishment of a super Watershed Review Board to pass upon decisions of all federal agencies doing river engineering work.

Unexplained was how a sponge already saturated could hold much additional water, nor the fact that the small upstream reservoirs already in operation in the area exerted no appreciable effect on the downstream flood stages.

The Washington Post, which has been writing learned articles from 1500 miles away about the need for an MVA since 1944, sent a reporter to the scene who dispatched colorful articles on how everybody in the region but the politicians favored the valley authority—a view diametrically opposed to those received from others in the valley. The Post, which also has engaged in social crusades concerning regions out of its circulation area, was the first major newspaper to crusade for an MVA.

In Congress, valley authority proponents dusted off some old bills. Representative Rankin (D., Miss.), introduced a proposal to establish a network of authorities around the country, bringing to mind ideas expressed some time ago by President Truman at a press conference. This bill, which must have been patched up from some old pieces, still referred to the Department of the Army as the "War Department" and to the Secretary of the Army as the "Secretary of War."

Down in the flood-stricken area the story was different. There the people were most concerned with realities. They looked at their flooded farmlands, crumpled bridges, tattered highways, ruined homes, disrupted plants and mud which rested two feet deep in the streets and settled around machinery in the factories—mud in which were moored drowned cattle and broken utility lines which newspapers referred to, often, as "messy."

INDICATIVE of the local temperament following the flood was the swinging over to the Pick-Sloan plan by the Capper publications in Kansas. This combine, largely farm journals with circulation of about 4,000,-000, had opposed the construction of large dams because of the loss of productive farmlands, but voiced a change of opinion after the disaster.

The Army Engineers have estimated, at 1950 prices, that \$300 million of authorized reservoirs and protective works in the Kansas Basin, if completed at the time of the flood, would have controlled the waters.

Competent engineering surveys and experience have shown that it takes big downstream reservoirs on the rivers or near the mouths of tributaries to control floods.

It is not likely that the majority of people of the region concerned will be misled by a vociferous minority which advocates either a completely different, questionable program, or changing the administration of the present program at the expense of centralizing power in a super agency which disregards state lines and sovereignty.

The flood has served to point up the need for concentration on the job to be done. A Missouri Basin program which is only 20 per cent completed and 45 per cent under way could hardly be expected to stem the tide. It is a credit to the contract method of construction and the Engineers that the performance of Missouri Basin work has invariably been ahead of time schedules, and planning of the program's projects has been ahead of appropriations, with awards being made as soon as funds become available.

The techniques of flood control have been improved by experience. This disaster, while a bitter experience, undoubtedly will provide data to enable the Engineers to further perfect features in the program.

Missouri Basin people have their program, fully blueprinted. No doubt they are more interested in going full steam ahead on this schedule that they can sink their teeth into, rather than listening to the music of the theorists from outside.

MUCH praise is due those in the flood area who are working through emergency non-profit corporations to tackle the mammoth cleanup and rehabilitation job.



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ture up in a hurry and completed on schedule.

If you have plans and specifications on a building or a bridge, send them to us to be estimated. Even if you are only considering such projects and they are in the "talking stage," consult our technical experts. They can help you.



#### Construction in '50 Reverses 10-Year Trend

#### • Western Shift Stopped Dead by Huge Gains in East Coast States

➤ THE SURPRISING reversal of a ten-year trend was revealed recently by Department of Commerce studies which show the New England and Middle Atlantic states making the greatest 1950 new construction gains.

Both areas, losing their percentage of national volume greatly from 1938 to 1948 while western states gained, turned the tables to become the nation's fastest expanding regions.

#### New England Jumps 32%

The New England states raised their 1950 outlay to \$1,439.6 million—32% over 1949. The Middle Atlantic states, New York, Pennsylvania and New Jersey, put \$5,178.6 million worth of new construction in place—a 31% increase over the previous year.

The latter section, which showed the greatest decline in percentage of national construction in the 1938-48 period, contributed 18.9% of the national total last year—only .1% behind the top figure of the East North Central states.

Although construction rose in all sectors, the western states did not multiply their 1949 construction in 1950 at nearly the rate shown by New England and Middle Atlantic.

The West South Central states, Texas, Oklahoma, Arkansas and Louisiana, which had been gaining at the fastest rate, were below the national average increase of 23% in 1950. Another previously high area, the West North Central, dropped from the position of second fastest rising region to the bottom of the list.

Other regions and their increase in construction volume for the year were: South Atlantic—26%, East South Central—24%, Mountain—23%, East North Central—22%, West South Central—21%, Pacific—15%, West North Central—14%.

Although the Pacific region's increase was low, California had more

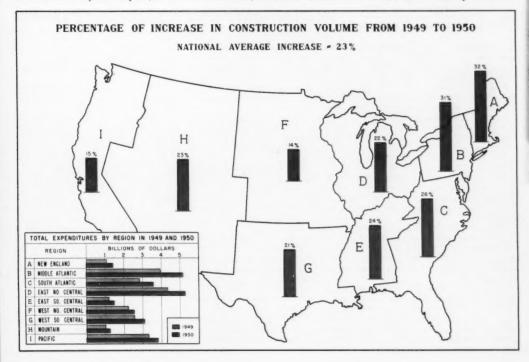
new construction than any other state in the nation—\$2,847 million worth. Even that was a drop from the state's 1949 total. New York was second with about \$2,330 million and Texas was in third place with \$1,925 million.

That same order, California, New York and Texas, was true for privately-financed construction, but New York led in public construction, followed by California and Pennsylvania.

#### Jersey Gain Highest

The most significant change was an increase of 66% in New Jersey, for which the new turnpike was chiefly responsible. The largest drop, 16%, was in the District of Columbia, while neighboring states, Maryland and Virginia advanced 51% and 48%.

Recent developments in 1951 indicate that this phenomenal shift in 1950 may have expended itself and western areas may again be taking the lead in industrial expansion.



#### **Kansas Contractors Rally Behind Flood**

#### Volunteer to Tackle All Emergency Repair Jobs at Cost

>> PROVOKING WHAT Maj. Gen. Lewis A. Pick, chief of Army Engineers called one of the country's 'worst disasters by water," the high, fast waters of the Kaw River swept through eastern Kansas last month. then joined the Missouri and Mississippi in a destructive journey southward. Behind them they left crumpled bridges, tattered highways, disrupted utility plants and mud. The mud rested 2 feet deep in the streets and settled around machinery in factories. Thinking of the occasional bodies of drowned cattle moored in the silt and the broken sewer mains, newspaper reporters and contractors used the word, "messy," often.

Before the sweeping flood waters had rolled on, however, contractors in the stricken towns of Topeka and Kansas City had organized for emergency rehabilitation work.

In Topeka, 5 contractors formed a non-profit corporation, Topeka Disaster Corps, Inc., and offered their services and equipment for reconstruction. All other Topeka contractors agreed to subcontract on the same basis.

Capt. Robert H. Allan, Topeka area chief for U. S. Army Engineers, promptly divided the county into 5 areas and assigned a contractor to supervise operations in each. He expressed his confidence in them, and told them close supervision would be impossible. They could submit certified payrolls, receipts for materials and equipment reports to him for reimbursement, he said.

The 5 firms combining their forces in the emergency organization are all A.G.C. members—the Bennett Construction Co., Martin W. Watson, the Douglas Construction Co., the A. F. Reis Construction Co., and the Kaw Paving Co.

Although suffering business losses of their own, the contractors offered their equipment for rental on a cost basis. After pooling their own machinery, they surveyed the state for more equipment.

A 30-day deadline for completion of all emergency projects was established. By that time, Aug. 17, Capt. Allan and the high echelon of contractors hoped to finish the gigantic job of restoring all essential public services—repair of water, gas, elec-

tricity and sewer systems, and streets, highways and public buildings.

Local union officials, in a meeting described by a local paper as "a story of unity and sacrifice for both contractors and labor men," said their members, regardless of skill or wage scale, would all work for \$1.50 per hour, around the clock.

In Kansas City, another "Disaster, Inc." was initiated by the combined efforts of contractors and labor unions. Robert W. Long of the Long Construction Co., A.G.C., heads the cleanup organization.

The city council has voted \$225,000 for flood rehabilitation and assigned \$25,000 to the construction group to meet immediate payroll needs. Much of the cost of repairing flood damages will come from federal sources.

The September Constructor will carry a round-up story on how contractors are rebuilding devastated flood areas.

#### **Contractors Suffer Losses**

A.G.C. members in the flooded areas suffered both business and personal losses along with other industries. Kenneth R. Lewis, manager of the Kansas Chapter, Builders Division, reports that "the office of the Constant Construction Co., Lawrence, was badly hit. Water rose to the ceiling and all furnishings which were not removed were destroyed. There was 3 feet of water in the office of the Rinner Construction Co., Topeka, and Dean Rinner lost his household goods when his house was inundated. An asphalt plant belonging to the Douglas Construction Co: was washed

"There was no report yet from Manhattan where damage was even greater. . . ."

(A more recent letter from Brown Brothers Construction Co. of Manhattan reveals their shop and office building was completely destroyed.)

"Salina members lost some materials when their shops were flooded but suffered no serious losses."

#### Replacement Factor in Equipment Expense

AN ADDENDUM to the A.G.C. Contractors' Equipment Ownership Expense schedule recommends consideration of current costs of major repairs and replacement of construction machinery as an additional factor in calculating a contractor's equipment costs.

Approved by the Equipment Expense and Executive Committees of The Associated General Contractors of America, the addendum is as follows:

"The A.G.C. Contractors' Equipment Ownership Expense schedule expresses all results as a percentage of original capital investment. This is necessary if the contractor is to have a known figure on which to base his calculations.

"At the time of publication the schedule did not take into consideration variations in the purchasing value of the dollar for the reason that such variations have been gradual, and within the relatively short life of construction equipment would not be a major factor. However, the importance of this factor has increased at an accelerated rate and reports have multiplied that the application of the method set forth in the schedule is no

longer yielding contractors' costs of ownership including necessary major repairs and replacement. Studies made have demonstrated this to be so.

be so.
"The schedule also contemplates adjustment to fit the experience of the individual contractor.

"Replacement parts cannot be purchased nor can labor for making the repairs be obtained at the original contemplated cost.

"Replacement of equipment, assuming that the contractor plans to continue in the construction business, cannot be accomplished with only the return of the original capital invested.

"Therefore, the additional factor of replacement costs, as related to both major repairs and replacement of the machine as a whole, is recommended for consideration by the contractor in calculating his equipment costs. This can be done on a monthly or annual basis, and on an increasing or decreasing cost scale.

"This factor may be measured in various ways. Comparing current quotations on new like equipment with original investment is a justifiable practice; using nationally recognized indices is another."

#### **Fourth Quarter Allotments**

Fourth quarter allotments of steel, copper and aluminum for defense and defense-supporting construction and production have been announced.

Generally, quantities of these controlled materials to be distributed during the last quarter of this year are the same as those for the current quarter, with allocations for civilian production slightly reduced.

Defense Production Administrator Manly Fleischmann stated that during the next 12 months there would be a marked increase in materials diverted from civilian production to defense needs for the purpose of expanding the nation's over-all productive capacity.

By 1953 it is hoped that both military and civilian demands can be met and that inflationary shortages can be avoided.

On the right is the table of 1951 fourth quarter allotments.

#### New M-4A to Replace M-4

A new Order M-4A, replacing the basic construction Order M-4, was due be be issued early this month by the National Production Authority.

Anticipated daily in late July, the order, which is supposed to bring construction controls more closely in line with the controlled materials plan, apparently was held up pending extension of the controls act.

The new order was expected to permit start of small projects using less than specified amounts of controlled materials without authorization, and provide for self-certification to obtain small quantities.

Limits per quarter that were being considered are: industrial, or multiunit residential (not to exceed per person, or builder, per quarter), 25 tons of steel, 2,000 pounds of copper, and 1,000 pounds of aluminum; single-unit residential, and all other projects except List A in M-4, 2 tons of steel, 200 pounds of copper, and 100 pounds of aluminum.

Above the amounts finally to be set as limits, projects will continue to require authorization, it was expected.

An industry advisory committee meeting held in Washington July 10 to discuss the order was attended by A.G.C. members Walter L. Crouse, Detroit, and H. C. Turner, Jr., New York.

#### **Fourth Quarter CMP Allotments**

CLAIMANT AGENCY AND PROGRAM	TOTAL STEEL	TOTAL COPPER AND COPPER BABE ALLOYS	TOTAL ALUMINUM	
	(Tons)	(000 lbs.)	(000 lbs.)	
Estimated Supply	21,336,000	1,166,000	508,000	
Secretary of Defense	1,946,000	205.800	168,000	
Secretary of Army	32,634	1,260	300	
Atomic Energy Comm	183,403	7,160	7,559	
Federal Security Agency:	04 614	0.003	**	
Education	94,614 71,299	2,881 2,190	500	
General Services Admin.	19,920	600	225	
Veterans Admin	11,041	301	400	
Veterans Admin. Housing & Home Fin. Agency	180,000	17,457	500	
Secretary of Agri	127,400	8,490	5,500	
Secretary of Interior	10,000	256	37	
Defense Solid Fuels Admin.:				
Coal Mining	25,615	215	31	
Coke Ovens Defense Elec. Power Admin	18,135	535	70	
Defense Elec. Power Admin.	289,176	80,852	35,500	
Defense Minerals Admin	41,395	1,435	140	
Petr. Admin. for Defense	1,806,500	7.975	785	
Defense Transport Admin.	83,000	1,700	300	
Defense Transport Admin.  Maritime Admin.	103,000	4.455	350	
Bureau of Public Roads	250,050	1,150	520	
Civil Aeronautics Admin.	6,190	741	50	
Industry Divisions of National Production Auth.:				
Agriculture Mach. & Imp	528,400	8,500	5.800	
Aircraft	15.639	1.148	7,950	
Aluminum & Magnesium	12,850		3,800	
Building Materials	1,016,100	45.900	50.000	
Chemicals	1,010,100	1,000	8.135	
Chemicals. Communications Equip	39,453	53,090	2,900	
Construction Mach	503,450	4,940	2,000	
Consumer Due Courts	000 000	40.020	** 000	
Consumer Dur. Goods. Containers & Packaging	867,000 1,615,216	49,050	57,000 17,900	
Copper	43,140	2.525	11,000	
Electronics.	571,530 72,550	148,700 33,385	27,000	
Engine and Turbine	461,600	15,070	2.600	
NPA Facilities Bureau (Industrial & Commercial	***,****	******		
Construction, etc.)	653.725	7,100	55	
General Components	1,067,500	150,094	14.700	
General Industrial Equip.	866,500	61.020	25,400	
Iron and Steel	347,100	1,650	29,000	
Leather and Leather Prods.  Lumber and Lumber Prods.	14,000	425	700	
Lumber and Lumber Prods	10,236	100	1,200	
Metal Working Mach. Equip	643,500	25,080	7,600	
Mining Machinery & Equip	95,000	2.595	225	
Misc. Metals & Minerals	1 800	837	16	
Motion Picture—Photo Prods.	8,320	1,420	3.750	
Motor Vehicle	3,461,300	147,800	92,300	
Ordnance & Shipbuilding	167.212	8.015	1.300	
Printing & Publishing	3.788	1,70€	375	
Pulp, Paper, and Paper Board	1,000	5	50	
Railroad Equip. Rubber	1,872,425	64,355	8,500	
Rubber	33,715	3,842	475	
Scientific & Tech. Equip	47,500	35,600	16,000	
Service Equip	46,850	2,800	5,750	
Tin, Lead, and Zinc. Water Resources.	164,950	4,050	5,000	
		4,000	175	
Exports (ECA-OIT)	676,000	9.825	2,450	
Canada	343,625	2,750	2,250	
Allowance for Maintenance, Repair and Operating Supplies	1,312,150	26,884	3,050	
Reserves for Program Adjustment and Self- Certification	1.171.015	59,850	31,900	
Total Allotments	24.058,520	1,325,941	681,475	

#### **Price Regulation Delayed**

Issuance of a new price regulation to permit contractors to reflect increased labor and materials costs in future ceiling prices, which had been expected August 1, was delayed pending study of the new controls legislation and other factors.

Meanwhile, Office of Price Stabilization officials were considering the extension of the old deadline (June 15) for filing required information under the present service trades order CPR 34 to an appropriate time after the new order is issued. The Associated General Contractors of America strongly favored such action.

OPS officials and the Construction Industry Advisory Committee met July 26 to discuss a proposed new order, which the agency said would not drastically affect the cost of construction, since wage increases in this industry have not been large. OPS officials were told that many contractors were suffering hardship by the requirement of CPR 34 of absorbing wage increases in profit margins.

The A.G.C.'s position is that (1) cost-plus-a-fixed-fee contracts, and all public and private construction contracts awarded as the result of competitive bidding should be exempt from price regulation; (2) that administration of price control for general contractors should be handled separately from the sellers of building materials and services rendered by specialty contractors and subcon-

tractors; and (3) the OPS arrangement should be patterned after that of NPA, where construction is a separate entity and not part of the Materials Branch, and close liaison should be maintained between the two agencies on construction, since price will depend to a great degree on the availability of materials.

A.G.C. members on the advisory committee who presented these views are H. R. Turner, Jr., New York; W. Murray Werner, Shreveport, La.; F. W. Heldenfels, Jr., Corpus Christi, Texas; and Ben P. Griffith, Los Angeles.

#### Monthly Controls Checklist

National Production Authority materials orders:

M-72 regulates distribution of domestic chemical wood pulp.

M-73 regulates distribution of materials among railroad and trolley companies for MRO programs.

M-74 prohibits the use of copper or copper-base alloy in 30 items of building materials after July 1.

M-75 limits the uses and inventory of new and used steel drums.

M-76 places the supply of soft pig lead, produced by primary refiners, under control, and includes all restrictions on lead and lead products which were contained in M-38.

M-77 affords assistance to the communications industry for the expansion and maintenance of its facilities.

M-4, amended July 3, (1) requires NPA authorization for construction of homes with more than 2,500 square feet of floor space instead of limiting such authorization on the basis of \$35,000; (2) extends the list of construction items in which copper and aluminum can not be used; (3) exempts construction by or for the Office of Rubber Reserve, Reconstruction Finance Corporation; (4) removes the words "fixtures or equipment" from the exemption for the installation of personal property up to \$2,000; (5) moves "outdoor advertising sign" from List A to List C.

CMP fourth quarter allotments were announced July 27. (Page 23)

Construction Industry Stabilization Commission issued its first regulation which covers wages, salaries, and other compensation on the basis of area rates for laborers and mechanies. (Page 27)

#### **Record-Keeping Requirements Under CMP**

>> CONTROLLED materials record-keeping as required by Section 17 of CMP Regulation 6 is highlighted by investigations just begun by the National Production Authority to check compliance with CMP rules.

The agency each quarter will cover operations of about 1,000 representative companies in a cross-section of industries and trades affected.

Persons receiving allotments are required to keep records showing:

(1) material being accounted for, (2) identifying program information (example: C-2, designating Defense Department construction), (3) unit of measure, (4) quarter in which valid, (5) quantities received, (6) quantities reallotted to others, (7) quantity ordered direct from sup-

pliers, (8) allotment balance available, and (9) dates and posting references.

Separate records are required for each allotment identification, each controlled material, and each calendar quarter. Your records must be kept at your regular place of business in a form of your choice, the important thing being that they must be accurate and available for inspection by NPA or its claimant agencies.

NPA has published a booklet called "Allotment Accounting for Consumers under CMP." It is available for 5¢ at Commerce Department field offices or Commerce Department, Division of Printing Services, Distribution Section, New GAO Building, Washington 25, D. C.

Allotment Identification C-2		Controlled Carbon	Unit of Measure Short Ton	143.	Quarter 4th Qtr. 1951	
				Allotments Us		
Date of		Reference	Allotments Received	Reallotted to Other Consumer	Orders Placed	Allotment Balance
July	15	C-2	400			400
July	20	"X" Company		100		300
July	22	"Y" Company			300	0

An example of an allotment card that meets requirements. It was developed by NPA, but will not be supplied by the agency. (Examples filled out are in italic.)



... reminds you of U.S.G. roof deck contractors who build

## SHEETROCK-PYROFILL

T.M. Reg. U.S. Pat. Off

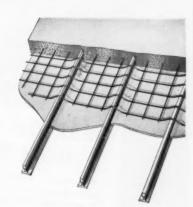
#### poured-in-place gypsum roof decks

Bees build their hives to "required specifications" and always meet the construction schedule. That's their specialty.

U.S.G. roof deck contractors build SHEETROCK-PYROFILL roof decks to required specifications, too—and building fast is *their* specialty.

They can meet schedules because SHEETROCK-PYROFILL goes on faster—20,000 square feet and more poured per day, after steel is in place. And it sets in less than 30 minutes! They also meet the most exacting specifications because SHEETROCK-PYROFILL is incombustible, lightweight, strong and easy to maintain.

But remember: only your U.S.G. roof deck contractor can build Sheetrock-Pyrofill roof decks. He also erects roof decks of USG Precast Metal Edge Gypsum Plank and Short Span Gypsum Tile. For his name, write Industrial Sales Division, United States Gypsum, Chicago 6, Illinois.



Note how SHEETROCK-PYROFILL anchors itself to the steel sub-purlins.



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A BASIC regulation establishing the wage stabilization policy for laborers and mechanics in the building and construction industry primarily on the basis of area rates was issued last month by the Construction Industry Stabilization Commission and approved by the Wage Stabilization Board.

Regulation No. 1, issued in accordance with WSB General Wage Regulation 12, applies only to laborers and mechanics employed directly on the site of the work as defined in Section 3 (a) of GWR No. 12. Other nonmanual employees in construction remain under jurisdiction of either the WSB or the Salary Stabilization Board.

Under the new regulation, a contractor is permitted without further approval to pay the area rate recognized by the CISC for the appropriate job classification.

#### **Rate Determination Methods**

Pending publication of area rates, the rates permissible without further approval are to be determined by one of three methods:

(1) a contractor on a federal government project may pay the rates predetermined for the project by the Secretary of Labor; (2) where rates have been fixed by collective bargaining between the customary parties in accordance with the customary practice of the area, any contractor may pay rates not higher than the rate being paid under the collective bargaining agreement on the effective date of Regulation No. 1. (July 26), provided that such rate was established without violation of earlier wage stabilization regulations; (3) where there is no established collective bargaining agreement negotiated in accordance with the customary area practice, a contractor may pay for each job classification a rate not higher than the rate actually prevailing in the area for the appropriate type of construction, provided that such rate was established without violation of earlier wage stabilization regulations, proof being the obligation of the contractor. In case of doubt, interested persons may request the commission to set the area rate.

#### Increases Must Be Authorized

The regulation prohibits increasing wages above the rates in effect in an area on the date of the regulation unless specific authorization is ob-

CISC Issues Basic Regulation
Covering Laborers, Mechanics

- Policy Based Primarily on Area Rates
- Productivity Issue, Basic Date Pose Problems

tained from the CISC in accordance with the procedures established in the regulation. The commission did not announce the policies it would follow in acting upon requests for the establishment, revision, or approval of rates.

The policy of the WSB's general wage regulations will serve as a basic guide to the commission in the formulation of its decisions, but the automatic application of these regulations to the building and construction industry "is inappropriate for the reasons set out in the Statement of Considerations to GWR 12," the board announced.

WSB added that, pending the promulgation of policies and regulations specifically designed for the construction industry, General Wage Regulations 5, 6, 8, 9, 10 and 13 will not be applicable.

#### CISC-WSB Relationship

The regulations approved by WSB establish the relationship between the Construction Industry Stabilization Commission and the Wage Stabilization Board and define the limitations of the authority of the commission, and it should be noted that at the present time all actions taken by this commission must be approved by the WSB before they become effective.

The series of orders or regulations of the Wage Stabilization Board, itself, together with certain decisions which the board has made in specific cases, have developed for industries other than construction a basic formula or policy which is at least an indication of the nature and kind of wage increases which may receive approval by the WSB.

The CISC was created for the purpose of developing regulations which would be practical when applied to the peculiar employment conditions in construction and as a result, the commission and the WSB find that one of its first functions is to try to develop basic formulae and principles which would be a guide to those in the industry seeking adjustments in their present wage structures.

One of the problems receiving consideration of the commission and the board is that of the January 15, 1950 "basic date." Is it the correct basic date from which to apply the 10 per cent theory of increase to compensate for cost-of-living for the construction industry?

#### Would Lose in Wage Cycle

This question arises because of the fact that in the construction industry the major portion of the workmen are working under agreements which probably became effective after January 15, 1950, and, therefore, agreements which were created in May or June would lose practically a whole year in the round of wage increases.

However, inasmuch as the 10 per cent policy established by Economic Stabilization Administrator Johnston and the WSB was supposedly to compensate for cost-of-living increases, what then would be done in adjusting the 10 per cent to some other figure, which would represent the cost-of-living from some other base date such as June 1st? On the other hand, many other industries have received as much as, say, 3 per cent increase for the productivity increases, which had been previously authorized under agreements. In the construction industry, productivity increases are not singled out, but nevertheless, some believe that the persons in the industry may be entitled to the same privilege as those receiving the productivity increases in other industries.

#### **Adjustments Expected Soon**

Therefore, the commission and the board are engaged with such problems as how to provide the construction industry with the equivalent of the costof-living and productivity increases permitted in other industries.

These problems and a number of others probably will be developed and adjusted at an early date. It is expected that through such action on formulae and decisions on specific cases that may be sent to the board, will gradually establish a wage policy for the construction industry.

#### **Delegates Find ILO Session Unimpressive**

Diversity of World Conditions Permits Only General Discussion

> THE TWO U.S. employer delegates to the third session of the Building, Civil Engineering and Public Works Committee, International Labor Organization, have submitted a report which reveals the limited value of the committee and closes with a recommendation that a stand be taken against its continuation.

Apparently dismayed by the possible range of subjects available for study and the difficulties in finding common problems, the employer delegates reported the experience enlightening but of dubious worth.

L. C. Rogers of Bates and Rogers Construction Corporation, A.G.C., Chicago, and S. L. Fuller of the John F. Casey Company, A.G.C., Pittsburgh, represented industry on the five-man delegation of labor, government and industry spokesmen.

Their careful report of the committee meetings in Geneva, Switzerland, last February, traced the action taken on the two subjects of the agenda, "Welfare in the Construction Industry," and "Seasonal Unemployment in the Construction Industry."

#### "Welfare" Definition Ignores U. S.

The extent of socialistic philosophy among members of the International Labor Organization was discernible in the first discussions on welfare in the construction industry. Mr. Fuller and Mr. Rogers state that "limitation of the application of the word 'welfare' to purely social welfare of the workers at the site of a construction project curtailed the discussions to such an extent that very little of concrete value could possibly result from the sessions.

"No discussion or consideration could be given to those ideas which we in the United States commonly associate with the idea of 'welfare,' such as promotion of safety practices, insurance plans or provisions for hospitalization, vacations, or educational and recreational projects, etc., all of which are part of the interests assumed by our employers in the consideration of efforts to improve the actual welfare of the individual employee."

The final result of much discussion on that subject was the adoption of "an innocuous resolution that simply outlined some of the elements that should be taken into consideration whenever provisions for social welfare at the site of a construction project are being planned."

The subject, "Seasonal Unemployment in the Construction Industry," found delegates at an even greater loss of common ground. The climatic differences of the 19 countries represented, from Norway and Finland to India and South Africa, yielded some interesting information, but made adoption of resolutions with worldwide application difficult.

Suggestions offered by the delegates to reduce seasonal unemployment included one from the British employers member that repair of heavy equipment could be undertaken on large civil engineering works when winter conditions made outside progress impossible. In other European countries, such as Denmark, Sweden and the United Kingdom, building is under government licensing control and some attempt is made to spread the work out. The French workers member pointed out that factory prefabrication of houses would help by transferring work from the site to the factory during the wintertime. "The Polish Government member, as was to be expected, expressed the point of view that seasonal unemployment could only be removed by over-all economic planning and by nationalization of the building industry.'

Almost all the European countries reported unemployment insurance systems in operation. The Finnish government member said that 80 to 85% of its unemployed construction workers got benefits. In France, only employers contributed to the unemployment fund which pays workers 75% of their normal wage for a maximum period of 48 days of inclement weather. The British Isles guarantees a worker a minimum of 32 hours for any one week in which he starts to work, at half hourly rate, if the weather turns.

Constructive efforts were reported on the part of Denmark and the United Kingdom to promote interior repairs during the winter,

The net result of the discussions was a statement of policy on seasonal unemployment with 16 specific measures by which it might be alleviated in the various countries.

#### Oppose Guaranteed Wage Topic

Employer and worker delegates from both Canada and the United States opposed the adoption of the guaranteed weekly wage as a subject for next year's session. They voiced their disapproval by abstaining from the vote which was recorded as 77 to 0, with 8 abstentions. The other subject likely to be scheduled for the next session is means of financing housing construction.

The difficulty encountered in finding topics of discussion prompted the U. S. employer delegates to say in their report, "... the lack of subjects creates a vacuum into which are bound to come more and more Socialistic questions, like that of the guaranteed weekly wage and others which may be propounded."



Members of the United States delegation, representing labor, management and government: (left to right) Harold McSpedon, president, New York City Building and Construction Trades Council; S. L. Fuller, president, J. F. Casey Co., Pitted burgh; L. C. Rogers, president, Rogers Construction Co., Chicago; George P. Delaney, International Representative of the AFL and workers' delegate on the ILO's Governing Body; John J. Moreschi, associate counsel, International Hod Carriers, Building and Common Laborers' Union.

# GM DIESEL powers world's most compact 600 cfm Compressor



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#### Navy Expanding Shore Bases, Air Fields and Research Labs

- New Weapons Require Vast Testing Facilities
- Dams, Radio Plants, Hospitals Now in Progress

THE FAST-MOVING defense effort is not leaving the U.S. Navy behind. On land, as well as on the waves, that branch of the armed forces is building up its strength. In fact, as the fleet grows, so must its shoreside facilities. Under the Navy Shore Establishment, bases are being readied as quickly as possible, and much construction is being pushed to completion ahead of schedule.

The introduction of new weapons, radical changes in old ones, the increasing role of aviation and the growing importance of electronics in naval operations have greatly increased the variety of installations. Extensive facilities also must be provided for laboratory research and field test work, important in navy planning.

In distant locations base construction invokes unique problems. Engineers and contractors are learning to work in various climates, in all kinds of terrain and with many new materials. Each project in the far-flung program becomes a challenge in itself.

#### **Big Air Base Renovation Program**

Stateside, the Navy considers modernization of its naval air stations of prime importance. About \$192 million is earmarked to provide runways for the fastest jets and heavy planes.

A number of runways will be built at the new standard sea-level length of 8,000 feet. In addition, numerous existing strips will be extended and, because of their altitude, runways at Denver and at Mojave, Calif., will be lengthened to 10,000 and 9,500 feet respectively. Besides these extensions, existing runways and parking aprons will be reinforced at most stations to accommodate the heavier planes.

At some installations contracts already have been awarded for this work. At the air station in Norfolk, Va., for example, a low bid of \$4,804,210.55 was submitted by a combined firm of Blythe Brothers, Inc., A.G.C., of Charlotte, N. C., and Ralph E. Mills, Inc., A.G.C., of Salem, Va.

N. A. Jamine of Providence, R. I., was awarded the contract for the project at Quonset Point with a low bid of \$2,731,000.

At the Naval Operating Base, Guantanamo Bay, Cuba, two airstrips will be rebuilt and one will be lengthened under a contract awarded to Johnson, Drake and Piper, A.G.C., of New York, for \$4,444,000.

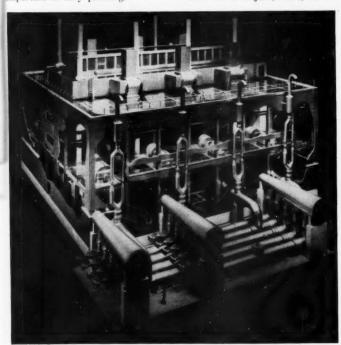
The Navy Civil Engineers have developed a new technique of concrete construction which will be used at Miramar, California. There the A&E firm of Kistner, Curtis & Wright of Los Angeles has completed the drawings for an aircraft maintenance hangar to be built of precast shell concrete. By the new method strong construction can be obtained at a great saving of concrete. This technique has been used previously in several buildings of rectangular dimensions, but this is the first use of it in an arch-type structure of such large span.

Contracts are now being let for rehabilitation work at a number of naval industrial reserve ordnance plants throughout the East. These contracts cover general repair and maintenance projects designed to condition plants for full operation.

The same kind of program is getting under way at the Navy's industrial reserve shipyards to put them in standby condition. This program will cost about \$5 million in the Third and Fourth Naval Districts alone.

#### **Harbors Dredged for Carriers**

At the new Mayport, Fla., naval carrier base, the Standard Dredging Company of New York is under contract for \$1,290,000 to complete a dredging job for a turning basin by November 1951. Construction of access roads at the base is almost completed and the installation will soon be able to handle the largest carriers afloat. Connected with this project, the Navy is also financing the dredging of 2,840,000 cubic yards in the entrance channel of the St. John's River



The highly specialized type of construction required in new naval research plants is apparent from this model of an altitude exhauster wing in a New Jersey laboratory (note size of human model next to rail on top deck).

by the Army Corps of Engineers.

In building up the Navy's shore establishments important consideration is being given to utilities. At the naval air station at Pensacola, Fla., 10 contracts were awarded recently for power equipment costing \$1,450,329. Bids for construction of a semi-outdoor power plant and installation of the equipment will be awarded shortly.

A new Guam power plant will soon be operating adjacent to the Fena River Dam, an earthwork structure which also is nearing completion. Water from the dam installation will be used to cool the condensers of the power plant.

The Fena Dam will create a lake about 2 miles long, providing a dependable source of water yielding seven million gallons per day.

Steps also are being taken to insure an adequate water supply for Pearl Harbor and nearby Honolulu. At Waiawa Gulch, a hilly area in the central part of the island of Oahu, the Navy Civil Engineers are completing work on one of the largest water tunnels in the Pacific Islands.

The Waiawa Gulch tunnel can supply 45 million gallons of fresh water a day, the greatest volume of water ever tapped in the Hawaiian Islands.

#### Radio Job Engineeering Feat

Among the major projects under construction in the Navy building program is the naval radio station at Snohomish County, Washington. When this facility is completed next year, at an estimated cost of \$11.4 million, it will be the nation's most powerful low-frequency communications outlet. The signals of the huge broadcasting station's million-watt transmitter will be 20 times as strong as those of any commercial radio station in the United States. Its "voice" will carry throughout the Pacific area.

Construction of this facility is something of an engineering feat because of the nature of the terrain and the variety of buildings and services comprising it. The installation will include a horizontal antennae plan consisting of 10 catenaries, ranging from 5,500 to 8,000 feet, strung across a valley between Blue and Wheeler mountains, with actual radiators approximately 5,000 feet in length. These catenaries will be supported on twelve 200-foot towers atop the two mountains.

The antennae will have vertical cables, averaging 1,200 feet in length, suspended from the mid-points of each

span. These down-leads will be connected to the bus feeders, consisting of a specially designed conductor 26 inches in diameter. The bus feeder system will be supported on 14 towers about 145 feet high extending approximately 2,500 feet in each direction from the transmitter building, which will be located under the center of the antennae array.

The first work on the project was the clearing of 3,800 acres of rugged timberland and the diversion of Jim Creek, which ran through the site selected for the transmitter building on the valley floor.

Construction also includes 12 miles of power transmission lines; access roads up the steep, wooded slopes of the mountains; sewage, water and steam distributing systems; telephone facilities; power and street-lighting systems and a number of buildings.

A different type of radio project is the erection of a new naval radio receiving station near San Juan, Puerto Rico. The new receiving unit, costing \$3,294,000, will give better reception for ship-to-shore, area broadcasts and point-to-point signals.

#### Many Test Facilities Under Way

A large proportion of the heavy construction being done in the present Navy's shore preparedness program is concerned with various test facilities. Some of these involve laboratory research while others will provide facilities for in-place equipment tests.

The largest single test installation is the aeronautical turbine laboratory, being built at Trenton, New Jersey, at a cost of \$22,750,000. In it the Navy will perform qualification tests on various makes of jet engines submitted for possible use by its air forces. The engines will be subjected to the most extreme conditions encountered in plane flight.

Atmospheric equipment at the new project can simulate altitudes of 65,000 feet, and large blowers will provide the equivalent of speeds up to 700 miles per hour. Temperatures down to 67 degrees below zero can be applied to the operating engines.

This is an example of the improved testing facilities that new jet engines require.

Recently an award for \$6,580,000, the largest single contract for the Trenton project, was given to Daniel J. Cronin, Inc., of Newark, N. J., for construction of a high-pressure blower and refrigeration wing, a test wing, and miscellaneous buildings.

Another test installation has just been begun at Annapolis, Md. The Cramer-Vollmerhausen Co., A.G.C., of Washington, D.C., has been awarded a contract for \$1,277,400 to construct a submarine propulsion test station designed to permit expansion of submarine research. Designed by the Navy Civil Engineers, the building to house the test station will be of steel frame with concrete walls, 237 feet long, 143 feet wide and 40 feet high.

At Lake Gem Mary, near Orlando, Fla., research in the same field will be greatly expanded with the completion of the underwater sound reference laboratory, which has just moved into its new, permanent quarters.

#### Unique Human Centrifuge Structure

Another recently completed research facility is the Human Centrifuge Building at Johnsville, Pa. This unique building, the largest of its kind ever built, will permit scientists to study the effects of high acceleration on man, and to test equipment for new high-speed aircraft and rocket projectiles, with the aim of increasing the limits of man and his equipment.

The main centrifuge building is a circular structure of reinforced concrete construction. The motor foundation, hub of the building, is constructed of reinforced concrete on solid rock with an expansion joint around it to prevent the possibility of vibration from the revolving centrifuge being communicated directly to the building. The building has three floors, the first of which contains the control, storage and service rooms, as well as most of the laboratories and an auditorium.

The second floor, 28 feet high, houses the centrifuge, consisting of a cab on a 50-foot rotating arm, capable of simulating flight at 60,000 feet. The third is the control floor, containing observation rooms and instruments for recording the tests.

Because of the uniqueness of the centrifuge project, it is considered an outstanding construction accomplishment by the Navy Civil Engineers.

#### **Big Facilities for Electronics**

The growing importance of electronics in military operations is reflected in the construction of the Flect Air Defense Test Center at Dam Neck, Va. This installation will be used to teach teams of men to operate guns, radar, etc. It will cost about \$18 million, of which about \$8 million will be used for construction.

The combat information center on

the base will be a three-story, T-shaped building, 241 feet long and 75 feet wide, of reinforced concrete grounded with a copper grid to prevent interference with the electronic equipment. It will have no windows on the side of the building facing the gun mounts. The contract for construction of this center has been awarded to the Virginia Engineering Co., A.G.C., of Norfolk for \$6 million.

Another important testing facility, this one to study the efficiency of electronic equipment under varied environmental situations, is now being completed at the New York naval shinyard

There Navy engineers will simulate the characteristics of the stratosphere, 80,000 feet above sea level, where the temperature is minus 94 degrees Fahrenheit. In the new chambers engineers also will study the effects of quick climatic changes upon electronic equipment.

#### Substantial Hospital Program

The Navy Civil Engineers are not devoting all of their attention to test facilities, however. One of the largest jobs now being completed is a hospital, the new structure at St. Albaps, Long Island, N. Y.

This installation, built under a \$14,823,000 contract by the Thompson-Starrett Co., A.G.C., of New York City, will contain every modern development in hospital construction. The entire structure will be equipped with conduits for television as well as a complete bedside radio system. Also, the operating suites will be air-conditioned, with humidifiers which will control relative humidity at 55 percent. In addition, special flooring will be provided to eliminate static electricity and prevent explosions from anaesthetics. The St. Albans Hospital is expected to be dedicated this month.

#### \$21 Million Hospital in Guam

Another large hospital project is getting underway at Guam, where a \$21 million installation is being built. This structure is to be a 350-bed hospital on a 500-bed chassis. It will be built of reinforced concrete, and should be completed in about two years.

It is evident from this partial review of construction projects that the buildup of the Navy Shore Establishment is an undertaking of tremendous scope. It is the aim of the Navy Civil Engineers to have the Navy's operating bases in condition to do their share if the nation should be attacked.

#### **Air Industry Asks Benefits**

The nation's aircraft industry is seeking acceptance of its tax amortization as an item of cost for pricing, and a shortening of the amortization period in the event the emergency should end sooner than five years.

An editorial in Planes, published by the Aircraft Industries Association of America, Inc., asserts that aircraft manufacture is devoted more than any other private industry to the fulfillment of military requirements, and that expanded facilities in this field for emergencies are largely unusable once the U.S. returns to peacetime basis.

It points out that tooling in this industry is special and sensitive, that change orders to meet the new combat challenge of an enemy can render much equipment useless overnight, and that many elaborate research, development and testing facilities required for new planes are useless long before a normal write-off period, and in many cases before even a five-year amortization period expires.

Admiral DeWitt C. Ramsey, president of the association, noted that the major emphasis in the air program at this time is expanding productive facilities "rather than a tremendous number of airplanes which could become obsolescent before there is any requirement for their use." The government is allocating \$26 billion, including sums requested in the 1952 budget, for airplanes, a substantial amount of which is for facilities expansion. This does not include private investment of aircraft firms.

#### **Navy Seabees Fast Workers**

Five weeks before General Mac-Arthur stepped onto a dock in Inchon Harbor, Korea, last September, that dock existed only as a pile of individual pontoons in a storeyard thousands of miles away in California.

In late July and August, some 250 Seabees from the 104th NCB stationed at Coronado headed for Korea for the famous amphibious landing. After a rough crossing, two LST's landed at Yokosuka in late August, and all hands began unloading equipment and constructing pontoon strings on the launching ways. A third LST went to Kobe before going to Inchon. The last arrivals came on August 29, and combat loading back onto the LST's began August 30 with three

LST's carrying the causeways and barges sidecarry, with cranes, dozers, and miscellaneous equipment on the tank decks. The warping tugs and new dock sections were made up into two tows, handled by fleet tugs.

On September 6 the construction company boarded an LST and they were ready for action, having offloaded all cargo, made up new equipment loaded it again, and built three big dock sections and rigged them into combat tows in little over a week.

Working under fire at the invasion beach, the Seabees desperately anchored a 5 by 30 dock section off Wolmi after the swift-running tide twice had swept it away. Connected to the beach by two 30-foot causeway sections, the pier was used by small vessels for landing troops, vehicles, ammunition and supplies.

Another dock section was brought into Inchon Harbor as a tide-level landing. After setting up a camp on Wolmi Island, the Seabees built a small outdoor theater—which contributed to raising the morale of thousands of sailors, soldiers and marines—did road work, harbor clearance, and set up a fleet recreation area.

Among the accomplishments of the "Can Do" boys was the recapture and return to Inchon of eight railroad locomotives from Yong Dong Po by six chiefs and four men with steam engine experience.

#### **Underground Structure Study**

A book for mine owners, construction personnel and civil defense authorities, dealing with construction of underground openings or converting existing mine tunnels for housing of plants and personnel in case of atomic attack, has been published by the Colorado School of Mines.

Designated Volume 46, No. 1, Colorado School of Mines Quarterly, the 304-page book is entitled, An Introduction to the Design of Underground Openings for Defense. It contains 114 illustrations and 22 tables dealing with a number of mining problems, including support and caving, rock bursts, shape of openings and heating, ventilating and air conditioning.

Authors include five Army Corps of Engineers officers who did research work at the school on building new openings or converting old ones.

It can be obtained for \$3 from Department of Publications, Colorado School of Mines, Golden, Colorado.

# Mechanical soldiers need good shoes, too!

These are days of grave concerns ... of conservation and mobilization for strengthening the nation's defense—for the survival of our national economy—for the continuance of useful highway, airfield, dam-site, reclamation and other construction programs—for the keeping of every home-front machine in condition to stay on the job until its replacement again becomes a normal procedure.

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#### **Utilities Get Tax Relief**

The first electric utilities and industrial power plants have been approved for tax amortization certificates, the Secretary of Interior announced recently. Fifty-seven proposed systems, representing a total estimated cost of well over \$573 million, will receive tax benefits.

The Defense Production Authority, which has sole power to approve the requests for tax relief, turned down 23 other applications. Up to July 13, the agency had received 239 of the applications having a total value of over \$1.6 billion.

The percentage of construction and equipment cost that can be depreciated depends on the post-emergency value of the facility. Officials reason that an industry which expands solely in the interests of national defense and which would not benefit from the plant after the emergency should theoretically be allowed to amortize 100% of the project cost over a 5-year period.

While one utility, the Yale Hydroelectric project in Washington state, is being granted a depreciation allowance of 75%, it is the only one that high. Several are receiving 65% benefits and some, 45%, but the majority are being allowed only 25%. The weighted average is 45.5%

The largest project contemplated is a new steam electric generating plant on the Muskingum River, Ohio, expected to cost the Ohio Power Co. over \$55 million. Other sizeable jobs are the Appalachian Electric Power Company's Kanawha steam electric plant, costing almost \$48 million, and two Detroit Edison Company systems, costing about \$43 and \$39 million.

#### **Tunnel Drains Leadville Mines**

Over 5 million gallons of water a day are flowing out of the famous old Leadville, Colo., mine workings since engineers tapped another underground water course, July 19.

By pushing the new Leadville drainage tunnel deep into the district's honeycomb of abandoned mine shafts, Bureau of Mines workmen are making the once-wealthy diggings workable again. Over 3,600 gallons a minute are gushing out of the 9,565 foot tunnel. The water level in one long-flooded shaft has dropped 33 feet below the June 18 measurement.

The Leadville area, at one time fabulously rich in gold, silver, lead and zinc ore, has been flooded from underground sources for some time.

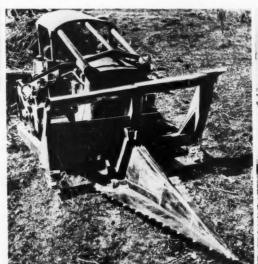
A War Production Board survey during World War II, however, concluded the district is still capable of producing substantial amounts of lead, zinc and manganese.

For that reason the federal government has taken an interest in the borings. Current work is being conducted on appropriations and contract authorizations totaling \$500,000. President Truman has requested another \$425,000 to complete the project.

In the meantime, engineers are pushing the long tunnel deeper into the mountains, confident that the mine workings will soon be yielding rich metal ore again.

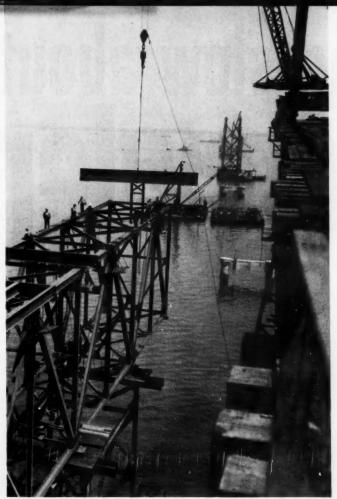
The "push button age" for rivers was inaugurated, August 1, when a gate, opened at Shasta Dam by electrical impulse, released trapped flood waters which, after being gaged, turbined, siphoned, metered, dropped, lifted, sloshed, pumped and exchanged, emerged 10 days later in irrigation ditches hundreds of miles away.

That is the way operations will commence on the Central Valley Project, largest multiple-purpose water and power system in the world. Remote controls in Sacramento will divert the flow through the Bureau of Reclamation venture from Shasta Dam to points 500 miles away.





OPERATION SWORDFISH—This uncommon but effective device is felling more trees on a Bighorn River, Wyo., project than the mythical Paul Bunyan. The swordfish-shaped saw blade, secured to a bulldozer, can shear a 24 in. cotton-wood tree off at ground level with a single pass. The Mid-States Construction Co. of Chisolm, Minn., innovated the attachment which it and 6 other firms are using on the 12,722 acre clearing job.



Chesapeake Bay Bridge noses out over the water past the half-way mark.

## **Bay Bridge Progress Fast**

One of the East's most ambitious engineering feats, the Chesapeake Bay Bridge, is now well beyond the halfway mark.

These recent pictures show progress on the 21,286-foot crossing. At top, a crane swings a steel beam into place on the bridge high above the water. The crane is mounted on a deck truss span alongside the structure.

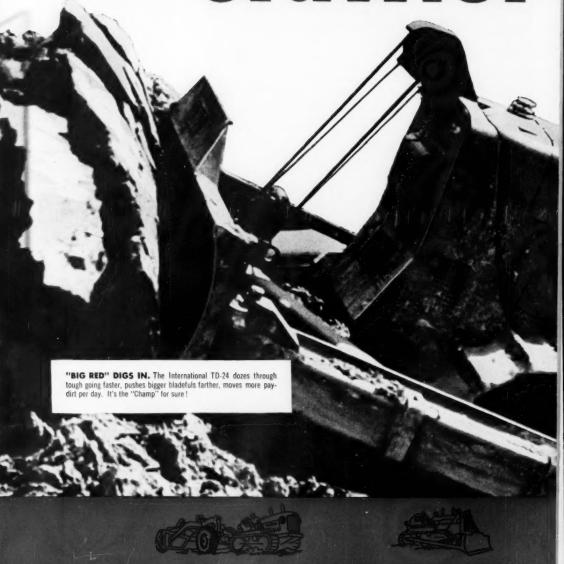
Below is a view of the bridge pushing steadily out into the bay. Starting from about 20 feet above the water at the shoreline, the structure will climb steadily to provide a clearance of 183 feet over the channel. Total length of the bridge proper is 4.3 miles, but approaches give it an over-all length of about 6 miles.

Completion of the Chesapeake Bay Bridge will mark a need realized 30 years ago to alleviate traffic conditions between New York City and Washington, D. C. Located 25 miles south of Baltimore, it will enable express traffic to skirt that city along the New York-Washington route.

Another bridge on the East Coast is about to open next month. The Delaware Memorial Bridge, a 4-lane suspension bridge, is nearly complete. These two structures, along with the New Jersey turnpike, are expected to cut travel time between New York and Washington by hours.



# nothing slow about this crawler



## Read what makes International's TD-24—the Big Red "Champ"—finish ahead of the field!

Man or machine, it takes speed and strength and stamina to take on all comers and leave 'em trailing behind. It takes guts and power to spare to be the "Champ."-

In a human, it means running a faster race, hitting a harder ball, fighting a tougher fight. In the TD-24, it means doing more work in less time than any other crawler on the market.

More speed—8 forward and 8 reverse speeds up to 7.8 mph for faster time cycles on the job.

More power—148 maximum drawbar horsepower—to take

a bigger load on the scraper, a bigger bite on the blade and move dirt faster, easier, cheaper.

More flexibility—synchromesh shifting "on the go"—instant change up or down one speed without declutching—Planet Power steering for pivot turns, feathered turns, turns with power on both tracks.

The TD-24 gets in and out and back in again faster—moves more dirt each time—makes more money for its owner every working day.

It's the Big Red "Champ" any way you look at it.

Come in and look. Ask your International Industrial Distributor for the low-down. Find out about his fast-moving parts and service setup, which will keep your International power on the job for years to come. You'll be a TD-24 man from then on in!

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS INTERNATIONAL NTERNATIONAL POWER THAT PAYS INTERNATIONAL DIESEL

## Alcoa Building to Have 6 Unfinished Floors

Aluminum Panels on Upper Stories Only by NPA Agreement

> INSTALLATION of aluminum curtain wall panels on the 30-story home office building of the Aluminum Company of America began this month in Pittsburgh, but the first six floors of the building will be left uncompleted by a unique arrangement with the National Production Authority.

NPA officials were understood to have threatened to issue a special order to stop the building if the company did not agree to leave the lower floors unfinished. The agreement was unusual in that it interfered with completion of a major building started before any government restrictions were promulgated.

A local newspaper editorialized on the discriminatory action—which it noted would save little, if any, metal for defense — against a building planned long before the Korean war.

The first six floors will be faced with temporary materials until a later date. All aluminum alloy required for the upper floors—suitable only for architectural uses—was set aside many months ago, and has been fabricated into forms for the building. (It is understood that forms for the lower floors also were being fabricated when the company was told to stop.)

Alcoa pointed out that no aluminum is being taken from current production for the building, and that approximately half of the metal originally specified has been replaced with substitute metals. In addition, use of the thin, weathertight aluminum curtal wall permitted a saving of more than 4,500 tons of structural steel and permitted a lighter, less expensive foundation, the company said.

Occupation of the building by Alcoa's forces, which presently are scattered in eight downtown buildings on temporary leases, is scheduled for May 1, 1952. The George A. Fuller Company is the contractor.

A survey of work by members of the Portland Chapter, A.G.C., indicates the approach of "a complete cessation of commercial construction in this area as a result of credit and material controls," the chapter has informed Oregon congressmen.

Noting that there is no prospect of sufficient defense projects to keep personnel employed, the chapter asked advice "as to the economic planning for the construction industry so that we may intelligently plan our own future activities."



Nine quantity survey bureaus have been endorsed by The Associated General Contractors of America. They are:

Charles Burton, Quantity Surveyor, 511 Builders Exchange Building, Portland 4, Oregon.

Koerner Engineering Company, Syndicate Trust Building, St. Louis 1, Missouri.

Pfeiffer Estimating Bureau, Inc., 539 West Market Street, Louisville, Kentucky.

Edward G. Scharf, 3 East Blackthorn, Chevy Chase, Maryland.

H. A. Sloane Associates, 415 Lexington Avenue, New York 17, New York.

H. L. Sommerfeldt, Construction Center, 215 W. Harrison Street, Seattle 99, Washington.

F. A. Cole, Building Estimator, 308 West Washington Street, Chicago 6. Richard Y. Kennard, Quantity Surveyor, 189 West Madison Street, Chicago 2.

R. S. Cresswell, Quantity Surveyor, P. O. Box 892, Greenville, South Carolina.

A quantity survey bureau also is being operated by the Milwaukee Chapter of the A.G.C., 224 Century Building, 308 North Third Street, Milwaukee 3, Wisconsin.

Contractors were advised by the association to ascertain the reliability and responsibility of bureaus with which they are not familiar before purchasing quantity surveys.

## Separate Bid Law Ditched

Bills introduced in the Connecticut State Legislature for a "separate bid" law for the mechanical trades have been defeated.

As a part of the A.G.C. Connecticut State Chapter's fight against the bills, its attorney prepared a comprehensive brief for the Legislature's Judiciary Committees, showing disadvantages of such a law for the public and for general contractors. The A.G.C.'s document, "Undivided Responsibility—Key to Lower Construction Costs," accompanied the brief.

The Connecticut bills were patterned after the separate bid law of Massachusetts, which again is concerned with a "separate contracts" bill after defeating similar proposals for the past three legislative sessions.



Another Pittsburgh Building Gets Its Lid—View of the 525 William Penn Place Building as it was being roofed. The 41-story structure is faced with stainless steel. Cellular glass insulation (PC Foamglas) was used under roof.

## **63 Become Journeymen**

The first apprenticeship completion ceremony in Freeborn County was reported to be the largest affair of its kind ever held in southern Minnesota.

The majority of 63 graduating apprentices were on hand, July 10, to receive certificates from State Director of Apprenticeship Frank Musala during the ceremony held at the American Legion Hall of the town of Albert Lea.

Addressing the graduates, P. Wesley Johnson, area supervisor, Bureau of Apprenticeship, Labor Department, told the new journeymen that it was their duty to pass on to new generations the techniques of their trade.

During the ceremony, Gene Lambert, assistant manager, A.G.C. of Minnesota, presented a certificate for no lost time accidents during 1950 to Paul M. Jensen, Viggo M. Jensen Company, Albert Lea.



Paul Jensen

## **Apprentice Class Told of Opportunities**

• W. A. Snow Addresses D. C. Carpentry Graduates

➤ SOME MEN acquire only learning, others only manual skill, but apprentices in the construction industry acquire both, graduating carpentry apprentices were told.

Welton A. Snow, manager of the Building Division and secretary of the National Apprenticeship Committee of The Associated General Contractors of America, who spoke during the first annual apprenticeship commencement exercises of the Joint Carpentry Apprenticeship Committee of Washington, D. C., told the 95 graduates attending the June 23 ceremony that having chosen their profession in the second largest industry in America (agriculture is first), they could anticipate unlimited opportunity.

"Your skilled services will be utilized in the construction of the facilities of your country. Your talents coordinated with others in our industry will play a most important part in making this nation a better place to live, will enhance its security and at the same time provide you with the inner satisfaction of a job well done." The active, alert contractor usually gets to know the good craftsmen in his area, and it is necessary that novice journeymen strive to do the best possible job at all times, and that they not be misled by shoddy contractors or union stewards who use unethical methods, he concluded.

District of Columbia program is carried out by representatives of the Master Builders Association, Inc., A.G.C., the Mill Operators, the Carpenters District Council, the Floor Covering Employers, the Public Schools, the District of Columbia Apprenticeship Council, and the Bureau of Apprenticeship.

The ceremony dinner was held at the colorful Terrace Room of the Washington National Airport. Other after-dinner speakers were Lawson J. Cantrell, associate superintendent, Public Schools of the District of Columbia; O. William Blaier, general executive board member, United Brotherhood of Carpenters and Joiners of America; and William F. Patterson, director, Bureau of Apprenticeship.

## Southern Conference Draws Delegates From 26 States



About 500 delegates from 26 states attended the Third Annual Southern States Apprenticeship Conference held June 14-16 in Memphis to discuss responsibilities of industry, labor and government in the training of apprentices on the job and in the classroom.

Among the 14 crafts represented were the construction and building

trades, machine tools and parts trades, and mechanics of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee and Texas.

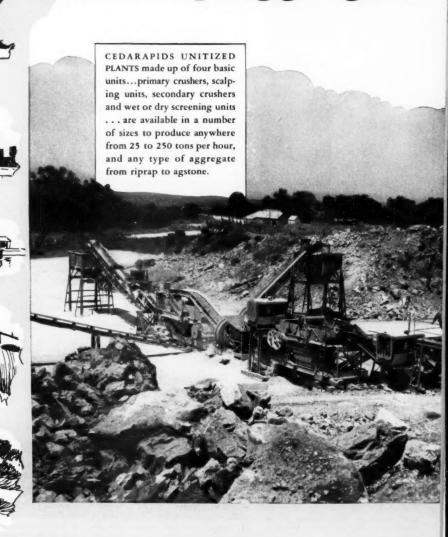
Shown above, left to right, are Lev G. Loring, president, Memphis Building and Construction Trades Council; Seth E. Giem, president, Memphis Chapter, A.G.C.; Joe Keenan, secre



tary-treasurer, Building & Construction Trades Department, A. F. of L., Washington, D. C.; and G. W. Maxon, Davton, national A.G.C. president.

In the picture on the right is W. W. MacLaughlin, Jr., general chairman of the conference and secretary-manager of the Memphis Chapter, A.G.C. (Earlier story on Page 158, July Constructor.)

for every aggregate



THE IOWA LINE of Material Handling Equipment Includes: ROCK AND GRAVEL CRUSHERS •

BELT CONVEYORS • STEEL BINS • VIBRATOR AND REVOLVING SCREENS • UNITIZED ROCK AND GRAVEL PLANTS
• FEEDERS • PORTABLE POWER CONVEYORS • PORTABLE AND STATIONARY STONE, GRAVEL AND SAND PLANTS •

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are available for immediate delivery to give you big volume
production of the cubicalshaped material required in so
many specifications today. High
capacity and high ratio of reduction mean lower plant investment through elimination of
much accessory equipment such
as secondary crushers, conveyors, etc. Because so much of
the material is broken in suspension, power and maintenance
costs are low. Four sizes meet
every requirement.

For the New Jersey Turnpike black top job, the Model 5050 Double Impeller Impact Breaker illustrated at the left is producing 400 tons per hour and more, depending upon the feed. Also shown are a Cedarapids 4'x 14' Triple Deck Horizontal Vibrating Screen and two 8'x 18' Storage Bins, making a complete set-up for big volume production.

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BARBER-GREENE COMPANY

AURORA, ILLINOIS, U. S. A.

SCATHING criticism of control policies which resulted in serious delays and loss of time during the peak of the construction season was directed at the National Production Authority by Western highway departments at the recent annual convention of the Western Association of State Highway Officials in San Francisco.

Overruns, Penalties Discussed—Page 47

The Joint Cooperative Committee of the American Association of State Highway Officials and The Associated General Contractors of America, which met in conjunction with the convention, was informed that:

NPA-approved steel allocations for highway construction are far below the needs.

Serious delays have occurred on a number of major bridge projects because of inability to get prompt delivery of structural steel, which is much harder to get than reinforcing steel,

NPA was too slow in delegating

## Western Highway Officials Criticize NPA

A.A.S.H.O.-A.G.C. Group Urges Prompt Use of Steel

authority to the Bureau of Public Roads to pass on the essentiality of highway projects,

The agency's controls on highway work should be further simplified by giving BPR authority to allocate and distribute the steel allocated to highway construction, and

NPA has not been sufficiently appreciative of the special problems of highway construction and the extreme shortness of the construction season at the high altitudes of the West.

## Prompt Use of Steel Urged

Prompt action by highway departments and contractors to make use of the steel allocated to highway projects was strongly recommended by the joint committee. NPA has allocated 300,000 tons of steel of all types for highway work in the third quarter of 1951.

In contrast to the criticism for NPA policies, both state highway department representatives and contractors praised the BPR for its cooperation in promptly processing applications for assistance in obtaining steel for highways.

Seventeen states now are using termination clauses in their construction contracts due to uncertainties arising out of the emergency, and several others are working on suitable clauses, it was reported.

Despite the steel shortage, most Western states reported keen competition for their contracts at recent lettings, and several noted recent bids below engineers' estimates. A notable exception was California, which experienced a recent drop in the number of bidders per project.

Committee members anticipated slight increases in highway construction costs as a result of rising costs of materials and labor, and the shortage of labor in some areas, requiring overtime work. However, the rise in the BPR's composite mile index during the first quarter of 1951 was only 2.6 per cent, mostly due to increases in costs of structures, particularly those requiring structural steel.

A bright spot of the meeting was reports that several states have progressed in the field of highway financing. Interim committees of legislatures have held meetings in several states, effectively presenting the highway situation to the citizens.

Some states also reported that longrange highway studies during the past year have helped in selling increased financing for roads.

R. M. Gillis, deputy state highway engineer of California, was co-chairman of the meeting for highway officials, and A.G.C. Past President Adolph Teichert, Jr., Sacramento, was co-chairman for the contractors. The BPR was represented by G. W. Mayo, chief of the bureau's Western head-quarters in San Francisco; J. A. Elliott, division engineer at Fort Worth, Texas; and F. A. Nikols, chief of BPR's Forest and Park Branch. A. N. Carter, manager, A.G.C. Highway Contractors' Division, Washington, D. C., is co-secretary.

Many other highway officials, contractors, and A.G.C. chapter executives were in attendance.

## Highway Contractors Can Take More Work

Competition Holding Costs Down, Carter Tells W.A.S.H.O.

> THE CONTRACTING industry can handle an even bigger road-building program than is now in progress, A. N. Carter, Highway Division manager of The Associated General Contractors of America, told the recent Western Association of State Highway Officials' convention in San Francisco.

Carter said that many of the 2,500 highway contractors in the A.G.C. have reported idle equipment and can "logically undertake" more work.

"A good indication of the fact that highway contractors have not been overloaded," he said, "is the keen competition that has prevailed in recent months for highway contracts."

That competition, he claimed, has kept the cost of road construction down, despite greatly increased costs in labor and supplies.

Carter briefed the convention on the controlled materials plan, applauding the long-delayed but now effective delegation of authority to Bureau of Public Roads.

He reported that 17 states have adopted termination clauses in their road contracts permitting cancellation of contracts where defense requirements slow up or halt projects. In addition to recommending the termination clause to cut the costs of risk, Carter urged the highway officials to continue long-range planning.

He told the delegates that A.G.C. chapters throughout the nation are cooperating with state highway departments to secure highway user revenues for highway use.

Some of the ways road officials can speed up highway construction, Carter suggested, are: (1) to give contractors free use of equipment to develop more economical procedures, (2) to let contractors begin work as soon as possible after the contract has been awarded, (3) to let contracts of different sizes to attract both large and small constructors, (4) to work for standardization to permit the savings possible when a contractor can use the same type of equipment in neighboring areas, (5) to lengthen construction periods by awarding contracts at the earliest possible date, and (6) to spread types of work out over different seasons.

Especially, he stressed, pay contractors fully and promptly when the job is completed.

## CAA's 1951 Plan Includes 4,945 Projects

Three-year Airport Program to Cost \$662 Million

➤ AIRPORT construction for 1951-54 as forecast in the annual plan of the Civil Aeronautics Administration, will cost an estimated \$662 million for 4.945 projects,

The three-year airport development plan will require \$323.7 million in federal funds and \$338.3 million in state funds for improvements to 2,657 existing airports and the construction of 2,288 new ones considered necessary now for national defense.

### **Defense Need Stressed**

The CAA's 1951 plan emphasizes the need for expanded airport facilities to permit military operations, and in some areas, new civil airports are being planned for part-military use.

The federal agency follows a policy of granting funds for single runway construction, except in cases of unusual volume of air traffic.

The plan proposes 1,524 new personal airports, 350 new secondary, 75 new feeder, 12 trunk, three express and five new continental fields. It allows improvements on 786 personal fields, 798 secondary, 581 feeder, 291 trunk, 74 express and 59 continental airports.

These classifications are based on runway lengths, as follows: personal, 1,500-2,000 feet; secondary, 2,301-3,000 feet; feeder, 3,001-3,500 feet; trunk, 3,501-4,200 feet; express, 4,201-5,000 feet; and continental, 5,001-5,900 feet.

To receive federal aid, covering about half of the cost of land acquisition and construction, airports must be in public ownership. Private fields in the plan must be acquired by some public agency before federal aid can be given.

Although \$520 million was authorized for airport development in the Federal-Aid Airport Act of 1946, only \$181 million is currently available for the agency's plans.

Of the 4,945 projects planned, 130 are in U. S. territories.

## **Phoenix Builds Tall Tower**

The tallest airport control tower in the United States has recently been completed in Phoenix, Arizona.

Almost 100 feet high, the unique structure supports a control deck which gives control personnel almost unlimited visibility to all sections of the new Sky Harbor Municipal Airnort.

A circular staircase climbs upward

within a steel shaft to the top deck of the tower. Also centered in the shaft are the necessary sewer and water pipes, wiring, heating and refrigerated cooling facilities.

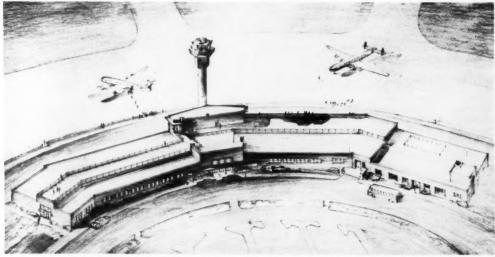
Another interesting feature of the tower is the glare-proof glass used in the lookout deck. Heat and pressure resistant, the newly developed product was used to build double panes with a vacuum between. It will withstand winds up to 100 miles per hour.

The chief controller's office is on a lower deck and all radio equipment is installed in the basement.

The tower overlooks one of the largest fields in the Southwest. The main runway is 6,000 feet long and 150 feet wide. Two additional runways run 5,500 and 6,000 feet and bring the airport into the CAA's type 5 classification.

The Mardian Construction Company, A.G.C., Phoenix, completed the tower before work began last month on the new terminal building under contract to the T.G.K. Construction Company, A.G.C., Phoenix. It will cost an estimated \$849,500.

The terminal, pictured below with the tower, is a 450 foot segmented arch furnishing accommodations for air lines offices, airport administration, shops, restaurant, government aviation agencies, and spectator areas on top. Ten airlines can be handled on the wide ramp before the terminal at the same time.



Architect's Drawing Shows Tallest Control Tower in U. S. Overlooking New Phoenix Airfield

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## GENERAL L. C. M.

For most work off the road, some on. Broad, deep lugs and thick, rugged shoulders prevent cuts, snags, bruises. More rayon cords, more rubber for extra carcass strength.

## GENERAL H. C. T.

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## GENERAL DUAL TRACTION LUG

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## GENERAL TRACTOR GRADER TIRE

For power wheels-sharp, diagonal, self-cleaning tread bars for maximum traction, forward or backward. For front wheelseasy steering, smooth riding ribs.

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## Prepared by The Associated General Contractors of America and Cooperating Bodies

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Aug. 1951

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➤ "AS OWNERS, we should not escape our own responsibilities if we expect the contractor to meet his," declared W. A. Bugge, director of the State of Washington's Department of Highways, as he exposed the handicaps under which state officials sometimes put their contractors.

Broaching the subject of overruns and penalties before the annual meeting of the Western Association of State Highway Officials recently, Bugge was blunt in denouncing both irresponsible contractors and thoughtless engineers. He appealed for fairness in dealing with road builders and asked fellow highway officials to try to see the contractor's problems.

"Whatever we do, separately or collectively," he asserted, "we should keep uppermost in mind the fact that the contracting industry is just as indispensable to heavy construction as the engineering profession, and it must, therefore, be treated with a fairness that sometimes is hardly distinguishable from elemency."

## Set Reasonable Limits

The Washington highway director asked engineers not to predestine overruns and penalties by setting unreasonable time limits.

"Very often the time for completion is the decision of a single engineer without due analysis of all conditions. Given a half dozen engineers to carefully fix the time on the same project independently of each other and you will have a half dozen different answers, not all of which will have contemplated all the climatic and physical obstacles that will encumber the contractor."

## **Consider Contractor's Problems**

He urged officials to consider these questions in determining their fair responsibility to their contractors:

(1) "Do we give proper consideration to the fact that it requires some time for any contractor, however efficient he may be, to assemble his equipment, transport and get it in place on the project, and to gather his organization before he can proceed effectively with production?"

(2) "Do we give adequate consideration to the isolation of the project from the labor market and differentiate in estimating time as between the isolated project and the one close to the metropolitan areas? Equipment will work for anyone, once on the project, but labor to run it nowadays

## Road Official Urges Fairness in Time Limits and Penalties

- Bugge Claims Engineers Sometimes Unreasonable
- Attacks Unreliable Contractors for Slowness

is very discriminating. Construction workers of some crafts are not to be found in all areas and must be brought in from other localities. Labor will not employ so readily in these lush days of prosperity to work in the remote regions without special inducements which the contractor cannot give without jeopardy to his relations with the unions from which he must get his labor supply. The most dependable of the crafts want to work no farther from home than will permit driving to and from the work every day and this tends to encumber the isolated project with less efficient help, and more unavoidable delays."

(3) "Are we advertising our projects in the best seasonal order for some particular classes of construction, or do we let the contracts more nearly in the sequence by which the field surveys and plans become matured and as befits our own convenience?

"Speaking from the viewpoint of our Northwestern states where annual rainfall varies from five inches to as much as 140 inches and winter temperatures from freezing to 40 degrees below zero, it makes considerable difference in the ability of the contractor to complete without overrun if his time allotment is close and if the contract period is sandwiched with a known seasonable period of bad weather that varies widely in intensity from year to year. It is unnecessary to elaborate upon the added cost of trying to work under these conditions, nor more than suggest that it results in higher bids which more than offset additional cost of engineering if the program of construction be better concentrated within the good working months. If the program has become a matter of coordinating an even outgo of available funds with incoming revenues, would it not be better, notwithstanding the inconvenience and delay to some projects at the very start, to effect a temporary lull in lettings to permit adequate accumulation of funds so that the larger portion of projects can thereafter be awarded in early spring, for instance, rather than advertise to accommodate incoming revenues?"

Normally, the contractor can anticipate some misfortunes by contingencies in his costs before bidding, (Continued on page 50)

## CAPSULE COMMENTS . . .

In a straight-forward address to Western state highway officials, W. A. Bugge, highway department director of Washington, made some candid remarks about overruns and penalties. Here are a few of his points, reported more fully on these pages:

V Considerate highway officials will treat contractors "with a fairness that is sometimes hardly distinguished from elemency," and help reduce overruns by (1) giving him time to assemble equipment, (2) allowing for availability of labor to the job, (3) advertising projects in the best seasonal order, and (4) making awards quickly.

V There are a few "sour apples" among contractors, too. These include the "derelict" (who bids greedily on more jobs than he can handle) and the "delinquent" (who has no intention of keeping his commitments and "relies on good luck, sympathy and fictitious excuses to dissipate the penalties he deserves"). They all should be penalized.

√ Among the Western states, three ways of setting time limits are used—calendar days, definite date and working days. Fixing limits in a stated number of "workable" days seems best.

√ Can highway departments reject low bids? Some Western states can, but seldom do. Others must take low bids.

√ How stiff should penalties be? Courts often grant relief to contractors who have unjustly been penalized. Officials should levy them cautiously.

# efficient under difficult JOB CONDITIONS

for F. Whitcomb

**Tournarocker makes short, 90° turn** out of cut onto main haul road ... travels at high speeds through apen traffic and up 5 to 6% grades on 1/2-mile haul to dump. These 2 rear-dump, electric-control haulers are Whitcomb's latest LeTourneau units. He bought his first LeTourneau dirtmovers in 1937 . . . hes been a regular repeat buyer since then.

Tournamatic Tournarocker - Trademail R243

NEW C Tournerackers now have 18-ton body increasing capacity by 12½%. Frims movers with Teurnemetic transmission and torque converters are also available, as well as the "Readshars" with their heavy-duly, sliding-gens transmission. Performance figures reported here were made with earlier 16-ten Readster withs.

Profit Insurance—Tournarocker body is read., Tilerchangeable behind "C" prime mover with equipment shown below.

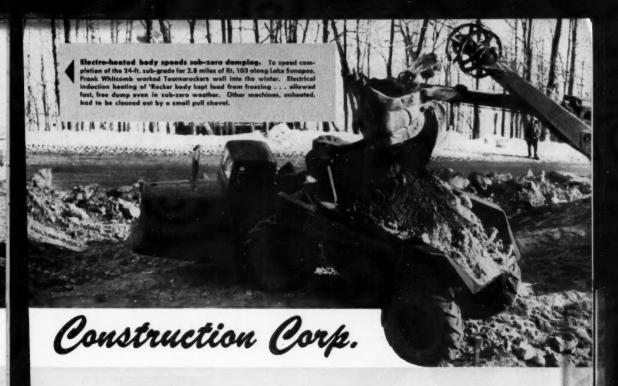
13.5-yd., 16-ton

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15-yd., bottom-dump

20-ton, flat-bed TOURNAHAULER

15 ton lift TOURNACRANE 6 or 7-yd., transit-mix



## 2 C-TOURNAROCKERS move 51 to 56 pay yds. hourly on 3-mile cycles through traffic

Frank W. Whitcomb Construction Corp. of North Walpole, New Hampshire, have a lot of solid rock in the 245,000 yds. of excavation they're handling on relocation of 2.8 miles of Rt. 103 near Newbury. Even the common earth is hard to handle because of large boulders. Hauls are long . . . averaging 11/2 miles one-way over existing highway through heavy, open traffic.

## Load 10 pay yds. of broken rock ... up to 15 loose yds. common earth

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"We're very well satisfied," says Supt. John T. Fox. He also stated that Tournarockers have been about 95% efficient under these difficult job conditions.

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ETDURNEAU TOURNAROCKERS

HIGH SPEED on RUBBER PLUS TRACTION ADVANTAGES of a CRAWLER

(Continued from page 47)
the highway director said, "but these
are not normal times; labor and parts
become increasingly critical month by
month. It follows, therefore that,
even though the contractor may have
a full complement of equipment and
top organization, in face of the unsettled conditions he cannot be expected to very accurately estimate the

calendar time he will need for completion and be thereby enabled to include possible penalties within his field costs and proposal."

field costs and proposal."

"Above all," Bugge asserted, "we ought to make awards as quickly as possible after opening of bids and we should delay the contractor the least possible because of revision of plans when the work is in progress."

After depicting the attitude in which officials and engineers could envision the contractor's problems, the Washington official turned to the contractor's responsibilities in a fair-dealing relationship. With the same frankness, he described their merits and shortcomings from the viewpoint of the highway official.

"It would simplify our difficulties considerably if all contractors were of equal management and equipment ability-all on par with the few we consider most efficient-but such is not the condition. We have to take them as they come, subject to their prequalification statements, and even those may be somewhat fictitious. We have learned from experience there is as much difference in contractor management and celerity as there is difference in the ability and alacrity of our own engineers-and that, you will agree, is quite a bit. Obviously, we cannot expect all contractors to meet the same high performance as the one we consider par exemple."

## **Attacks Slow Contractors**

He described the types of contractors whom state officials found particularly dismaying.

There is a type of contractor-not too numerous but nevertheless numerous enough to be troublesome-who incurs overruns because he is unduly slow in getting on the project. Although he may have the necessary equipment, he is slow in organizing his work forces. Like the proverbial indolent who will not fix the leaky roof because it is not raining, he doesn't worry at the beginning of the job because there is plenty of time, so he thinks, to do the job. He lets the work lag, the job runs itself, and the worrying comes at the wrong end of the contract period. He permits his equipment to go in disrepair, maintains poor labor relations and sets up inferior facilities for the help, such as camp and equipment maintenance. He is indifferent to the urgings of the engineer and unimpressed by the assistance the engineer could render if he would but try to cooperate. This contractor, unless he is extremely lucky, is on his way to bankruptcy, but his banker and his equipment supplier will not know it until it is too late.

"Shall we grant him extensions of time to blanket his own negligence? He says in his application for extension filed many weeks after the fact,



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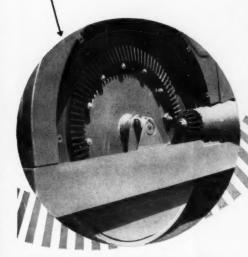
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that he was down awaiting repairs, that the labor union refused to furnish him help as needed because he doesn't believe in unions. He says he couldn't move on the job because of illness, that he thinked the work as fast as his equipment and organization could perform, that he was arbitrarily shut down by the engineer because of alleged rough subgrade, and finally that the time limit set was impossible of accomplishment—as indeed it proved to be for him."

Nor was that the worst type of constructor Mr. Bugge could muster. The ire of state highway directors is even more highly inflamed toward another species.

### "The Worst of Offenders"

"We have another type of contractor even more exasperating and detrimental than the deliberately slow one. It is the contractor who has abundant financial resources, a full complement of equipment for several jobs at one time, and a good top organization. But withal, he will knowingly bid more construction than he can expeditiously complete and trust that the advantages of keeping his extensive line of equipment busy all the time will more than compensate the penalties he may have to pay. He is the bidder who contracts, for example, to stockpile the mineral aggregate for many miles of oiling on an ample time allowance of say 100 days, and then fails to move in until 50 or more days have elapsed and thereby delays other dependent work into another season.

"This contractor is really in the rental business. He is the worst of offenders because his stability and promises have been taken at face value. He should be assessed penalties and liquidated damages commensurate with the costs and inconveniences he deliberately causes the public."

Speaking from his own experiences in the contracting business, Mr. Bugge deplored the reflection of the few unreliable firms.

"There is scarcely anything more discouraging in legitimate bidding," he commented, "then to be underbid by a contractor who has no intention of keeping his commitments and who purposes to rely upon good luck, sympathy and fictitious excuses to dissipate the penalties he knows he will deserve. If for no other reason than to encourage those who conscientiously endeavor to finish on time, we ought to enforce the penalties and liquidated



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damages with these derelicts. By their greed they deprive others of work and they cause the public much loss not reflected in the lower bid."

Whether states should or should not be forced to accept low bids from such contractors on subsequent contracts is a matter of concern to highway officials, Mr. Bugge said.

"Shall we reject the low bid of the delinquently inclined contractor in light of the previous experience and award to the next low in the public interest?

"Most agencies of the United States government and some states can do so, but we of Washington and some other states lack authority for that discretion. Under our law we cannot reject his bid and award to the next low because the statute provides in event of rejection that the work be readvertised or that it be performed by the state with its own forces-about the last thing we want to undertake. Unless we wish to lose valuable time in readvertising in the hope of getting a more responsible contractor, it appears about as well to accept the low bid because in the eyes of most courts the bid would, under the prequalification circumstances, be considered as from the 'lowest responsible bidder.'

"We are clothed with authority to cancel the prequalification of any contractor for just cause, and we have done so in several extreme cases in the past. This appears to be an effectual means of curing the evil, and it need not be confined to the small operator."

## Warns Against Harsh Penalties

He warned highway directors they must not be autocratic in assessing penalties.

In general, the courts are inclined to be very considerate of the rights of the contractor, and they consider, along with the tightly worded contract intended to surrender his rights to the wisdom or whim of the engineer, all elements that contribute to non-performance-and this is particularly evident in the court decisions where the owner himself has in the least degree contributed to the delays by negligence or other retardent action. The courts will sustain a reasonable amount of penalty or liquidated damages if the circumstances are due entirely to negligence or conditions which, with reasonable precaution, the contractor could have prevented.'

He concluded his remarks with an optimistic note, "While the matter of overruns will continue to be serious in



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instances—it will never be perfect—the violations are not as numerous as they were in the old days when contractor management possessed abundant zeal but operated under handicaps of primitive equipment that required more workmen, and when the management lacked much of engineering know-how. Today the conditions are much different because of great advances in the techniques and capacities of construction equipment,

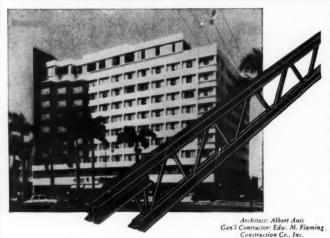
better labor relations, and not the least of all, because the educational background of contractor and engineer is now more nearly common."

Showing remarkable insight in the problems of both sides of the contractual relationship, Mr. Bugge appealed to contractors and engineers alike to recognize their common responsibilities. In that way, he affirmed, the extent and frequency of penalties can be reduced.

In conjunction with his speech, Mr. Bugge presented the results of a poll among Western state highway directors in which penalties were explored.

He found that three methods of setting time limits were in use—calendar days, definite date and working days. In his talk he advocated the last and recommended a procedure of requiring the contractor and engineer both to "endorse a signed statement at the end of each week to indicate the number of days or fractional parts that were sufficiently workable to permit substantial progress of the work."

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## Contract Policies Revealed

Four of the Western states—Arizona, Idaho, Montana and Oregon—set a definite date for completion of jobs. A stated number of calendar days are used by Colorado and Washington. States stipulating working days are California, Nevada, New Mexico, Texas, Utah and Wyoming.

A variety of replies were received on the question of enforcement of penalties or liquidating damages, ranging from "very seldom" in Colorado to "always" in Texas. Arizona said that each project was judged "on its own merits." California enforced penalties for engineering costs only, Idaho answered that it charged penalties "not often," Nevada replied "not very often," New Mexico said "a few times," Oregon responded that it enforced penalties "often" and Utah claimed "about 10% are penalized."

Montana answered that 17 of her 1949 contracts had been overrun and penalties were assessed against only eight of those for a total amount of \$3730. Washington affirmed that penalties or liquidating damages for \$11,020 in engineering costs were levied against seven contracts in 1949 and 1950. The Bureau of Public Roads reported enforcement of penalties on about 1% of its contracts.

On the same poll, the highway official received some pertinent data on amounts of penalties. They ranged from \$50 per day in Washington. \$75 per day in Nevada and \$100 per day in New Mexico to graduated scales in other states. Bugge advocated assessing penalties on a sliding scale.

Seven of the 12 Western states acknowledged on Mr. Bugge's questionnaire that they reserved the right to reject the low bid. Almost all of this number, however, stated they seldom, if ever, employed the privilege. Some feared legal complications would result.

(Text of statement on behalf of the members of The Associated General Contractors of America before the Senate Finance Committee, July 16, 1951, by George C. Koss, Koss Construction Company, Des Moines, Iowa.)

THE OPERATIONS of the general contractor are unlike the operations of members of any other industry in the nation. The general contractor has no inventory, depending entirely on skill and ingenuity and the various types of construction equipment to produce a profit. The general contractor's equipment must be used in all kinds of weather and under varied conditions. It is not protected from the elements and when in operation cannot be completely maintained. In this respect it differs very materially from industries where

## A.G.C. Presents Tax Testimony To Senate Finance Committee

George C. Koss Gives General Contractors' Viewpoint

the machinery and equipment is well housed and completely maintained. To eliminate the undue hardship on the general contractor, the following changes in the existing and proposed tax laws are respectfully requested:

1. To permit a contractor to treat as a net operating loss, subject to the carry-back and carry-over provisions of Section 122 (b) of the Internal Revenue Code, an amount representing the excess of the replacement cost of equipment used in the trade or business over the original cost of the same type of

equipment actually replaced in the year it becomes fully depreciated, or prior thereto.

A provision of this kind is urgently needed to enable many general contractors now operating in the field of construction to continue in business. The existing, as well as the proposed, rates of tax and the abnormal appreciation in the cost of construction equipment have created a condition that only legislative relief can alleviate. The impact is particularly severe on general contractors operating in the heavy and highway construction fields, where large stocks of construction equipment are necessary to their operations. This is true regardless of whether the general contractor operates as a corporation or as an individual. The life of the equipment used in the operation is short, and a certain portion of the equipment must be replaced every year. Because of this, the high rates of tax, and the abnormal appreciation in the cost of this equipment, the problem facing the general contractor is where to get the money necessary to replace the old equipment with new. It is self-evident that it must come either from borrowings or from past earnings or future charges. What this critical situation means in dollars may be seen in the following assumed example:

A contractor, this year, is confronted with the necessity of purchasing a new tractor to replace the same type of tractor that is no longer able to perform the work required. He finds that this particular type of tractor, for instance, a large crawler equipped with bulldozer, that was purchased in 1945 at a cost of \$10,000 now costs \$19,400. This means that the contractor, in order to remain in business and own the same type of equipment this year that he owned in 1945, must expend an additional \$9,400, or practically two times the original cost, for the same type of tractor. Actually, the contractor must replace more than one piece of equipment each year, so instead of merely being faced with the purchase of one tractor, he is actually faced with the purchase of several other similar

## Tables Showing Present, Proposed Tax Rates\*

1

Married Couple with no dependents:

	Amount o		Taxpayer
		Proposed	allowed to keep
Net Income	Present Law	New Bill	New Bill
25,000	6,724	7,565	17,435
50,000	19,592	22.041	27,959
100,000	52.776	59.373	40,627
500,000	403,548	433,161	66,839
1,000,000	858,548	900,000	100,000

11

Corporation subject only to combined normal tax and surtax:

Net Income subject to normal tax and surtax	Pre-1950	Amount of Present	Proposed	Taxpayer would be permitted to keep
25,000	5,750	6,250	7,500	17.500
50,000	19,000	18,000	20,500	29,500
100,000	38,000	41,500	46,500	53,500
200,000	76,000	88,500	98,500	101.500
500,000	190,000	229,500	254,500	245,500
1,000,000	380,000	464,500	514,500	485,500

11

Corporation subject to ceiling rate:

Cospi	or certon servi	cee to cenning	I cocc .		
Net Income subject to ceiling rate				Proposed 70%	Taxpayer would be permitted to keep
1st	25,000	Subje	et only to norm	al tax	17,500
Next	25,000	9,500	15,500	17,500	7,500
6.6	50,000	19,000	31,000	35,000	15,000
	100,000	38,000	62,000	70,000	30,000
**	200,000	76,000	124,000	140,000	60,000
**	500,000	190,000	310,000	350,000	150,000
**	1,000,000	380,000	620,000	700,000	300,000

\* Figures on rates of tax from committee report on H.R. 4473.

pieces of equipment that likewise have practically doubled in cost. It is not uncommon for the small contractor to be faced in a particular year with replacement of equipment originally costing as much as \$30,000, which today will cost approximately \$100,000. This means that a contractor must double his original capital investment. The smaller contractor, in the main, to secure the additional amount necessary for him to remain

in business, must either borrow the money out of future earnings or out of retained profits. Due to the high rates of tax, as proposed, there is small possibility of future profits or retained earnings.

For instance, a contractor operating as an individual (married) who finds it necessary to replace equipment requiring an additional expenditure of \$50,000 over the original cost of the equipment, must earn in excess

of \$150,000 to merely leave him in the same position, with similar equipment, that he had when the original equipment was purchased. (Table I).

A contractor operating as a corporation, subject only to the combined normal tax and surtax of 52 per cent as proposed in the new tax bill, must earn in excess of \$100,000 to assure his operation with similar type equipment now as at the time the original equipment was purchased. (Table II).

A contractor, operating as a corporation, with excess profits tax credit so low that it is subject to the proposed ceiling rate of 70 per cent, must earn, before taxes, to merely cover the additional cost of new equipment in the amount of \$50,000, in excess of \$125,000. (Table III).

Examples of the appreciation in cost of a few of the items of equipment commonly used by general contractors are:

1945 1950 D-8 Tractor with

Bulldozer...... \$10,105 \$19,401 \* 12 Motor Patrol. 6,916 13,461 20 Ton Motor

The hardship now confronting general contractors is comparable to situations that have confronted members of other industries in past years. Congress in the past recognized the then existing abnormal conditions and enacted legislation to alleviate the condition, in order to safeguard the right of members of the affected industries to continue in business.

 To permit a general contractor a carry-back and carry-forward of all unused depreciation allowances on equipment.

This suggested provision in the tax laws is needed because of the uncertain conditions under which general contractors operate. There is no guarantee of a continuity of work in this industry. It does not necessarily follow that a general contractor that has a profitable operation this year will have work the following year. It is, therefore, important that the right of carry-back and carry-forward of the unused depreciation allowances be written into the tax law to permit the general contractor to recoup the original investment in his equipment, which, in a small degree, will merely offset the hazards involved in the general contractor's operation.



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## LEGISLATION

3. That section 3475 of the Internal Revenue Code with reference to transportation of property tax be amended as follows:

The tax imposed under this section shall not apply to the use of motor vehicles by contractors in the movement of earth, rock, or other excavated material within the boundaries of or incidental to a construction project.

The purpose of this amendment is to bring to an end the confusion that now exists throughout the highway and heavy divisions of the general contracting industry. It likewise would permit uniformity with reference to administrative rulings and would eliminate conflicting court decisions. An example of how confused this situation is is reflected in an administrative ruling with reference to the movement of excavated material. Under this ruling the general contractor is permitted to use a bulldozer to push the excavated material to the desired location without being subject to the transportation of property tax. However, if a power shovel is used to pick up the excavated material and deposit it in an owner-trucker's truck and the truck then dumps the material in the same location where it was



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pushed by the bulldozer, it is ruled to be transportation of property and subject to tax.

## **Administration Proposes New War Agency**

≫ BROAD authority to provide rehabilitation assistance in event of an enemy attack has been requested by the administration in its bill, S. 1848, which is being considered by a Senate Banking and Currency Committee.

Consideration of long delayed war damage insurance bills now awaiting committee action will depend on the determination of this new bill which is being offered as a substitute for existing war insurance proposals.

S. 1848 would establish a War Damage Administration which would be responsible for restoration of basic community and industrial facilities, emergency funds for civilians in wardamaged areas, benefits to dependents of persons killed by attack, indemnities for damaged or destroyed property, and assistance to insurance companies which were threatened with financial ruin by obligations arising from a bomb attack.

## \$22 Billion For Property Damage

The bill requests an authorization of \$20 billion to compensate private owners of destroyed or damaged prop-

erty and \$2 billion for the repair of state and local government property.

Direct aid to state and local governments in money, materials and equipment would be made only to the extent that such governments could not provide for themselves. Also, the President would be authorized to make loans, grants or advances to any individual for restoration and repair, or demolition and clearance of any structure where local authorities were unable to complete the task.

### U. S. Chamber Opposes the Bill

The Chamber of Commerce of the United States, in opposing the enactment of S. 1848, stated that the measure would establish another source of federal money handouts "which would be difficult to administer and almost impossible to terminate," and that the program overlooked and overlapped the functions of insurance companies and would establish a new federal agency devoid of the "efficiency and experience available in existing insurance facilities."

## **Conferees Get Control Bills**

The peak of a three-way skirmish over the controls legislation was reached in late July as House and Senate conferees prepared to iron out differences and administration officials pressed for changes in House and Senate bills.

In a final 14-hour session, the House adopted the Senate's bill, S. 1717, but substituted therein many of its own provisions.

The Senate bill would extend basic controls for eight months; the House version, for one year. The Administration originally requested a two-year extension of the Defense Production Act which was temporarily extended to July 31.

The major field for compromise was in the varying provisions for price controls. Both Houses have rejected Administration requests for stabilized farm prices during various marketing seasons and for authority to license businesses as a means of enforcing price controls.

For farm commodities other than meat, the House would allow rollbacks to not less than 90 per cent of May 19 prices. The Senate would not allow any rollbacks of farm prices.

The House version of the bill would prohibit for tax purposes, the deduction of fines, penalties or compromise sums paid for price law violations, and would remove the \$10,000 limitation on punitive damages for a price ceiling violator.

The Senate would prohibit reducing the prices of consumer goods to an amount lower than the prevailing price between January 25, 1951, and February 24, 1951. At present, the Office of Price Stabilization is basing its price regulations and increases on 85 per cent of profits made in the 1946-49 period.

Generally, wage regulations would remain the same.

Consumer credit provisions added by the House would ease financing for automobiles, appliances, furniture and household repairs. The Senate would increase the payment period for purchasing new and used cars only. Both Houses would place restrictions on the discretionary powers of the Federal Reserve Board to fix credit.

Administrative authority over allocations and priorities of materials, subsidies and loans, and rapid tax amortization would remain practically unchanged.

Also of timely interest is this ROCERS Tag-A-Long trailer which makes a dump truck serve as a tractor and effects sizable savings for contractors.



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as standard construction in Rogers Power-Lift Detachable Gooseneck Trailers.



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## Chapter Ranks at 3/4 Mark

Chapters and branches which have the highest percentage of members sending in complete accident reports for use in the national A.G.C. accident prevention program are shown in the table below.

Members who wish to cooperate in the accident prevention program can still file reports beginning with October 1, 1950.

Chapter standings for the first nine months of the 1951 program year are as follows:

Chapters with Over 35 Members

Name	Per cent	Rank
Detroit Chapter	48.8	1st
Pennsylvania Builders		
Chapter	33.3	2nd
Constrs. Assoc. of		
West. Penna	29.6	3rd
Mich. Road Bldrs	26.7	4th
Houston Chapter	23.8	5th
A.G.C. of Iowa	22.5	6th

Chapters with 10 to 35 Members

Milwaukee Chapter	92.3	1st
Dallas Chapter	88.2	2nd
Chattanooga Chapter.	53.3	3rd
San Diego Chapter	20.0	4th
Memphis Chapter	14.3	5th
Michigan Chapter	12.5	6th

## Percy S. Vermilya Honored

To honor Percy S. Vermilya, president of Vermilya-Brown Company, Inc., New York, the Metropolitan Builders Association, A.G.C., which he helped to found, presented him a scroll inscribed as follows:

"In recognition of more than a halfcentury devoted to the construction industry, the members of the Metropolitan Builders Association hereby present to Percy S. Vermilya this testimonial of their admiration:

"As president of Vermilya-Brown Company, Inc., and as an officer of its predecessor organization, Mare Eidlitz and Son, Inc., he has had a direct responsibility for and personal interest in the construction of many of New York's finest buildings.

"Always a proponent of ethics and integrity, a co-founder and original vice president of this association, his leadership and example have long been an inspiration to his co-workers and to the construction industry."

The presentation took place at the annual dinner meeting of the chapter at which honor guests included National A.G.C. President G. W. Maxon, Dayton, Ohio, and Managing Director H. E. Foreman, Washington, D. C.

New officers elected recently by the board of directors of the Texas Highway Branch, A.G.C. are: president, W. H. Courson, Texas Butilithic Company, Dallas; and vice president, Wayne D. Tiner, H. B. Zachry Company, San Antonio. Charles H. Newell continues as secretary-treasurer. Retiring president F. W. Heldenfels, Jr., Heldenfels Bros., Corpus Christi, is 1951 vice chairman of the A.G.C. Highway Contractors' Division.



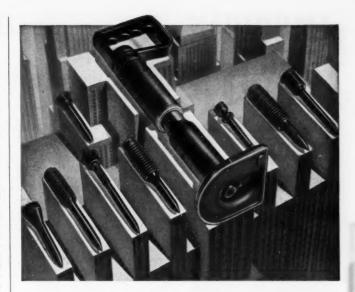


Trucks-The Euclid Road Machinery Co., Cleveland 17. Two reardump models have 22-ton capacity. Model 45TD is powered by Buda engine of 286 h.p. and Model 46TD has 300 h.p. Cummins engine. Both have 10-speed transmissions and are available with standard or quarry body. Heated body, to speed dumping in cold weather, is available as optional equipment. Top speed with full payload is 32 m.p.h. Double-reduction planetary-type drive axle is mounted on free-floating springs and is posi-tioned to frame by swivel-connected longitudinal radius rods. This mounting permits movement of springs in spring brackets and avoids leaf breakage caused by twisting on rough haul roads. Spring suspension provides for varying spring contact centers according to load—longer, flexible spring for empty unit and short, rigid spring for heavy loads. Air assist clutch, hydraulic booster steering and adjustable driver's seat are other features. Catalog (Form 121) on trucks is available from manufacturer or any Euclid distributor.



Model 45TD rear-dump Euclid

Jack-Templeton, Kenly & Co., 1020 S. Central Ave., Chicago 44. 'Simplex Rol-Toe" is 25-ton capacity hydraulic jack. Feature is that lifting toe capacity is identical to lifting capacity on cap. Toe rides on bearing roller that carries radial head against stationary ram's flat-milled surface. Broad 4½"x4½" toe always remains in even position. Jack has 7" lift, with minimum heights of 21% when lifting on toe and 14" when lifting on cap. Construction of head toe shortens off-center loading and brings toe closer to center of ram, so that ram does not travel. Jack operates equally well in upright or horizontal position. Oil reservoir is independent of load-lifting housing. Jack has 2 pumps-high-speed pump for positioning and lifting light loads, and high-pressure pump for heavy lifting. Safety by-pass valve is provided to guard against over-loading.



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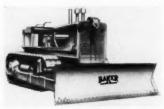
Here's really more for your money in a paneltype tower. Lightweight tubular steel quick to erect (especially in confined places) — is completely assembled with only 11 simplified component parts. Because it's built out of prefabricated panels with integral notch locking mechanism, it requires no bolts or nuts for braces and girts. Available with material platform or concrete bucket and hopper (as shown).

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Bulldozers-Baker Manufacturing Co., 569 Stanford Ave., Springfield, Cable-control mountings have been redesigned for new line of bulldozers, gradebuilders and root rippers developed for new Allis-Chalmers HD-9, HD-15 and HD-20 crawler tractors. New mountings are designed to provide maximum visibility, streamlined appearance, easy interchangeability, improved protection for cables and radiator and new push beam power tilt. Cable is located under fender, close to side of tractor, to protect it from brush and limbs. Built-in radiator guard with perforated grill is integral part of cable frame. Attachments are interchanged quickly by removal of bolt on each side, removal of wedges and detachment of lower sheave block at front. New power tilt eliminates need for jacks or pry bars to raise or lower push beam. Reverse tilt of moldboard is also accomplished by power. Catalog 895 on entire line of Baker attachments and detailed specification sheets on each model are available from manufacturer or Baker or Allis-Chalmers distributors.



New cable-control mounting for Baker bulldozers

Mixer-T. L. Smith Co., 2853 N. 32d St., Milwaukee 10. Half-vard 16-S non-tilter has drum with extralarge drum openings, wide skip nose and wide discharge spout. Machine is equipped with 4-cylinder air-cooled gasoline engine, syphon-type watermeasuring tank and over-size pneumatic tires. It can be equipped with 4-cylinder radiator-cooled engine or electric motor. Other features include: channel section welded supporting frame, universal acting spring suspension, adjustable, shock-absorbing V-belt drive, reduction gears enclosed in oil-tight case, skip vibrator with enclosed operating mechanism, spring stabilizers for charging and mixing cycles, anti-friction-bearingequipped adjustable drum rollers, automotive type steering. Optional equipment includes self-priming, centrifugal water pump, fold-back distributing spout, batchmeter with locking device and counter, 90" open-end skip for loading directly from batch trucks.



Smith 16-S mixer

Cement Distributor—Wood Manufacturing Co., Box 620, North Hollywood, Calif. Two-wheeled, rubbertired cement distributor, for use with either bulk cement trucks or sack cement, is attached directly behind cement truck. Cement is dumped into hopper on distributor and, by means of calibrated rotary vane, is metered onto windrow. Windrow is automatically troughed by axle-high V-spreader on front of distributor. Machine has adjustable capacity of 15 to 80 lbs. per lineal foot.



Wood cement distributor

Shovel-Crane — Schield Bantam Co., Waverly, Iorca. New heavy-duty boom is designed for lifting and loading with 5-ton truck-mounted Bantam shovel-crane. Available in 25' length, with 5' extensions, boom has high rigidity, due to use of heavier reinforcing and bracing. Boom is recommended for pipe handling, steel erection, etc. It is rated at 10,000 lbs. capacity at 10' with outriggers and 1,000-lb. counterweight.

## NEW EQUIPMENT . MATERIALS

Tractors-Caterpillar Tractor Co., Peoria 8, Ill. Heavy-duty fenders, previously offered as attachment for D8 tractors, are now standard equipment on D8 and D4 tractors. These fenders are manufactured from 1/2 steel plate and provide more rigid platform for mounting equipment and withstand greater abuse and rough treatment. Low-speed gear group to improve tractor-scraper performance, especially in pusher-loading earthmoving operations, is offered for DW10 tractors. First gear speed has been reduced from 2.8 m.p.h. Remainder of forward and reverse gears of low-speed gear group are same as standard group.

Mixer—Chain Belt Co., 1625 W. Bruce St., Milwaukee 4. New horizontal "Moto Mixer" is offered in 3 sizes with maximum capacities of 3, 4½ and 5½ cu. yds. Feature of new machines is single-strand-chain drum drive. Mixers are equipped with dropforged, flame-hardened drum rollers. Frame has been made lighter through use of alloy metals and improved fabrication methods. Water pumphas been relocated to simplify replacements and adjustments. It is driven by V-belt directly from engine crankshaft. Spouting equipment permits greater flexibility.

Tractor—American Tractor Corp., Churubusco, Ind. GT-30 "Terratrac" crawler tractor is powered by 4-cylinder Continental F-140 engine. When equipped with hydraulically activated bulldozer and angle dozer, it weighs less than 4,400 lbs. It has second speed of 3 m.p.h. and third speed of 4.98 m.p.h. It has interchangeable gage widths from 42" to 72" and has 5 lower track rollers. Other hydraulically operated attachments are bucket loaders, winches and scoops. Tractor has 3-point hydraulic lift system for rear-mounted tools.



American Tractor Corp.'s GT-30 "Terratrac" in recent mud test



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## NEW LITERATURE

Engines—International Harvester Co., 180 N. Michigan Ave., Chicago 1. Four 2-page folders present operating and construction features of International diesel engines. They are entitled: Long-Life Lubrication (Form CR-131-A); Combustion Control for Economical Power (CR-132-A); Fast All-Weather Starts (CR-130-A); and Pull Through Overloads (CR-133-A).

Pipelaying — International offers booklet (Form CR-113-A) picturing part International crawlers play in pipelaying. It contains "Selectograph" showing lifting capacity of each International tractor when working with matching Superior pipeboom.

Tractors—Fleet applications of International TD-24 diesel crawler tractors are presented pictorially in folder (Form CR-107-A). In addition to fleet scenes in earth-moving, mining, pipelining and lumbering fields, brief listing of mechanical features of tractor is included.

Engines—Wisconsin Motor Corp., Milwaukee 46. Wisconsin engine applications in farm, construction, industrial and oil fields are presented in bulletin (Form S-130). Single-cylinder engines of 3 to 9 h.p. and 2- and 4-cylinder engines of 7 to 30 h.p. are pictured and their specifications given. Power curves and dimensions of each model are charted. Wisconsin distributors are listed.

Engines—Caterpillar Tractor Co., Peoria 8, Ill. Booklet (Form 30180) lists 12 sizes of Caterpillar diesel engines, gives complete specifications of each and lists available attachments. Illustrations present engines on variety of jobs.

Roller—The Galion Iron Works & Mfg. Co., Galion, Ohio. Model 3-5-ton variable weight tandem roller is presented in Catalog 360. Improvements in construction and operation are described and illustrated. Complete specifications are listed.

Forming System—Symons Clamp & Mfg. Co., 4259 W. Diversey Ave., Chicago 39. Catalog F-7 incorporates all latest information on improvements in Symons system of wall-form construction. Illustrations show in detail how system operates and actual jobs are pictured. Blueprint illustrations and complete specifications are

given, material and equipment necessary are listed and time required and cost figures on actual jobs are included.

Concrete Machinery—The Willard Concrete Machinery Sales Co., 2906 Imperial Highway, Lynwood, Calif. Leaflet describes "Willard Way" of concrete production and placing by mobile portable machinery. It explains loading and weighing of aggregates from stockpiles and weighing of cement from storage by self-loading weigh batcher, charging of mixer by portable mixer-loading conveyor and finally mixing, transporting and placing of concrete by transit truck mixer. Illustrations and text show operation of set-ups on highways, drainage structures, floors, etc.

Rolling Scaffold—Superior Scaffolding Co., 5624 Bankfield Ave., Culver City, Calif. Leaflet describes erection of rolling scaffold which can be made 2' wide and 3' long or 10' wide and 24' long. Step-by-step pictures show how scaffold is set up. Also presented are "Jiffy Jack" adjustable trestle, shack jacks and flat backs, stud scaffold jacks, sliding ledger and splice clamps and ledger clamps and mortar board stands.

Asphalt Paving Plants—Standard Steel Corp., 5001 S. Boyle Ave., Los Angeles 58. S.M. series asphalt plant line is presented in two bulletins, 150 and 511. Bulletin 511 presents operators' experience with equipment in field and 150 deals with construction details of plants, which are available in batch capacities from 500 to 6,000 lbs. Structural improvements described include individualized drives, one-man operation, sectionalized mixer linings and vertical streamlined design.

## Lessons in Arc Welding

New Lessons in Arc Welding is new 320-page book based on lessons and instructions given at the Lincoln Arc Welding School. It includes 32 basic lessons covering welding mild steel in all positions and 29 advanced lessons covering other welding applications. Practice materials, exercises, questions and answers are given for each lesson.

The book is illustrated with pictures and drawings. Price is \$1.00. Copies may be ordered from The Lincoln Electric Co., Cleveland 1, Ohio.

## MANUFACTURERS' NOTES

INTERNATIONAL HARVESTER Co. has announced reduction in list prices of its light models of motor truck chassis and attachments. Price adjustments cover L-110, L-120, L-130, L-150 and L-160. Chassis price reductions range from 3.4% to 6.4% and attachment price reductions average 2.25%.

Bob Wagner has been made manager of the news bureau and related public relations work of The Timken Roller Bearing Co.

John P. Courtright has been elected executive vice president of The Marion Power Shovel Co.

Charles P. Harlow has been appointed sales manager of the Hardware Products Department of Wick-wire Spencer Steel Division of The Colorado Fuel and Iron Corp.

Richard W. Sabine has been named manager of distributor sales in the Mechanical Goods Division of Goodynam Tire & Rubber Co., succeeding W. T. Bell, who died recently. Sheldon R. Harper succeeds Mr. Sabine as senior staff member in charge of sales promotion and advertising of the Mechanical Goods Division.

Robert E. Huthsteiner has been elected president of Cummins Engine Co. Formerly executive vice president, he succeeds J. Irwin Miller who becomes chairman of the board.

William J. Fleming has been appointed manager of the Construction Equipment Sales Division of WORTHINGTON PUMP AND MACHINERY CORP. . . . Herbert E. Gallison has been named manager of the Industrial Mixer Sales Division.

Carl McWade, advertising director of Skilsaw, Inc., has been elected president of the Chicago Industrial Advertising Association.

G. E. Gunther has been appointed assistant sales manager of Thew Shovel Co.

John M. Martin has been named assistant general manager of the Explosives Department of Hercules Powder Co.

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Manufacturers' addresses are listed on page 71

Aggregate (Light-weight)

Great Lakes Carbon Corp., **Building Products Division** 

Air-Entraining Agents A. C. Horn Co.

Asphalt Plants (Portable)

Barber-Greene Co. Iowa Mfg. Co. Standard Steel Works White Mfg. Co.

Asphalt Tile

Coleman Floor Co.

Axles (Truck)

Eaton Mfg. Co., Axle Division Buckets (Clamshell & Dragline)

Bucyrus-Erie Co. Cleveland Trencher Co. Harnischfeger Corp. Parsons Co.

Batchers

Blaw-Knox Division Butler Bin Co. Construction Machinery Co. Heltzel Steel Form & Iron Co. C. S. Johnson Co.

Bearings (Anti-Friction, Tapered Roller)

Timken Roller Bearing Co.

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Blaw-Knox Division Butler Bin Co. Heltzel Steel Form & Iron Co. Iowa Mfg. Co. Irvington Form & Tank Corp. C. S. Johnson Co.

Bits (Detachable Drill)

Ingersoll-Rand Co. Timken Roller Bearing Co.

American Bridge Co. Armeo Drainage & Metal Prodnets

Blaw-Knox Division Bucyrus-Erie Co. Harnischfeger Corp. C. S. Johnson Co. Owen Bucket Co. Wellman Engineering Co.

**Buckets** (Concrete)

Blaw-Knox Division Construction Machinery Co. Heltzel Steel Form & Iron Co. Jaeger Machine Co. Owen Bucket Co.

**Building Papers** Sisalkraft Co.

**Buildings (Steel)** Allied Structural Steel Cos. American Bridge Co. Armco Drainage & Metal Products International Steel Co. Macomber, Inc. Smooth Ceilings System Truscon Steel Co.

Bulldozers

Bucyrus-Erie Co. R. G. LeTourneau, Inc.

Car Pullers

Clyde Iron Works

Coleman Floor Co.

Ceilings

Fenestra Building Products Smooth Ceilings System

Cement (Common and Special) Lone Star Cement Corp. Universal Atlas Cement Co.

Cement (White)

Trinity White, General Portland Cement Co. Universal Atlas Cement Co.

Clamps (Hose)

Dixon Valve & Coupling Co.

Allis-Chalmers Co. Ingersoll-Rand Co. Jaeger Machine Co.

Concrete Curing Material

A. C. Horn Co. Sisalkraft Co.

Concrete Machinery (Mobile) Willard Concrete Machinery

Sales Co.

Concrete Mixers, Pavers, Tampers

Chain Belt Co. Construction Machinery Co. Foote Co. Jaeger Machine Co. Knickerbocker Co. Koehring Co. Kwik-Mix Co. T. L. Smith Co. Worthington Pump & Machinery Corp.

Concrete Vibrators

Electric Tamper & Equipment Ingersoll-Rand Co. White Mfg. Co.

Conveying Machinery

Barber-Greene Co. Chain Belt Co. Iowa Mfg. Co. Link-Belt Co.

ST. LOUIS

Austin-Western Co. Bucyrus-Erie Co. Cleveland Trencher Co. Clyde Iron Works Harnischfeger Corp. Koehring Co. R. G. LeTourneau, Inc. Link-Belt Speeder Corp. Michigan Power Shovel Co. Northwest Engineering Co.

**Crushing Machinery** 

Allis-Chalmers Co. Austin-Western Co. Iowa Mfg. Co.

Armco Drainage & Metal Products

Cutters (Abrasive)

Skilsaw, Inc. Wodack Electric Tool Corp.

Decking (Roof Steel & Aluminum)

Fenestra Building Products Macomber, Inc.

Clyde Iron Works

Doors (Metal, Wood)

Ceco Steel Products Corp. Fenestra Building Products International Steel Co. Kinnear Mfg. Co. R. C. Mahon Co. Truscon Steel Co.

**Dredging Machinery** Bucyrus-Erie Co.

Harnischfeger Corp. Northwest Engineering Co.

Drills & Drilling Machinery

Bucyrus-Erie Co. Ingersoll-Rand Co. Timken Roller Bearing Co.

Drills (Electric)

Skilsaw, Inc. Wodack Electric Tool Corp.

Elevators (Material)

American Tubular Elevator Co. Chain Belt Co. Iowa Mfg. Co. Link-Belt Co.

Allis-Chalmers Tractor Div. American Hoist & Derrick Co. Caterpillar Tractor Co. Continental Motors Corp. Cummins Engine Co. Detroit Diesel Engine Division Harnischfeger Corp. Ingersoll-Rand Co. International Harvester Co. Wisconsin Motor Corp.

**Expansion Joints** 

Laclede Steel Co.

Fasteners (For Steel, Concrete) Ramset Fasteners, Inc.

Financing

C.I.T. Corp.

Finishing Machines (Bituminous)

Barber-Greene Co. Blaw-Knox Division

Finishing Machines (Concrete) Blaw-Knoy Division

Floor Construction

Smooth Ceilings System

Floor Covering

Coleman Floor Co.

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THE CONSTRUCTOR, AUGUST 1951

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### **Flooring**

Fenestra Building Products Truscon Steel Co.

Forms (Concrete) and Accessories

Baker-Roos, Inc. Blaw-Knox Division Douglas Fir Plywood Assn. Economy Forms Corp. Heltzel Steel Form & Iron Co. A. C. Horn Co. Irvington Form & Tank Corp. Richmond Screw Anchor Co. Joseph T. Ryerson & Son, Inc. Symons Clamp & Mfg. Co. Universal Form Clamp Co.

Generating Sets (Electric)

Caterpillar Tractor Co.

J. D. Adams Mfg. Co. Allis-Chalmers Tractor Div. Austin-Western Co. Caterpillar Tractor Co. Euclid Road Machinery Co. Galion Iron Works & Mfg. Co. Koehring Co. W. A. Riddell Corp.

Gravel Plants (Portable) Iowa Mfg. Co.

Grinders (Electric)

Wodack Electric Tool Corp.

Gypsum Roof Decks United States Gypsum Co.

### Hammers (Electric)

Wodack Electric Tool Corp.

American Hoist & Derrick Co. Clyde Iron Works Construction Machinery Co. Harnischfeger Corp. Ingersoll-Rand Co Jaeger Machine Co. McKiernan-Terry Corp.

Hose (Air, Water, Steam, Suction) United States Rubber Co.

Industrial Financina C.I.T. Corp.

Insurance (Automobile, Casualty, Compensation, Liability) Aetna Casualty & Surety Co. Central Surety & Insurance

Corp. Employers Mutuals of Wausau

Joists (Steel)

Ceco Steel Products Corp. Macomber, Inc.

Kettles, Heating (Asphalt & Tar) Standard Steel Works White Mfg. Co.

Coleman Floor Co.

Loaders (Portable)

J. D. Adams Mfg. Co. Barber-Greene Co. Link-Belt Co.

Menders (Hose)

Dixon Valve & Coupling Co. Ingersoll-Rand Co.

Mixers (Truck) Blaw-Knox Division Chain Belt Co. Jaeger Machine Co.

**Mixing Plants** 

Blaw-Knox Division Butler Bin Co. Chain Belt Co. Jaeger Machine Co. C. S. Johnson Co.

Nipples (Hose)

Dixon Valve & Coupling Co.

Partitions (Steel, Load-Bearing) Fenestra Building Products Macomber, Inc.

Pile Drivers

American Hoist & Derrick Co. Austin-Western Co. Bucyrus-Erie Co. Harnischfeger Ingersoll-Rand Co. Link-Belt Co. McKiernan-Terry Corp. Northwest Engineering Co.

Piling (Steel)

Allied Structural Steel Cos. American Bridge Co Armco Drainage & Metal Products Bethlehem Steel Co. L. B. Foster Co. Inland Steel Co. Union Metal Manufacturing Co.

Armco Drainage & Metal Products L. B. Foster Co Laclede Steel Co

Plywood (Concrete Form) Douglas Fir Plywood Assn.

Pumps (Contractors')

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